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Case of William Walton, of Pudsey, a young Man, 18 *Years of Age; by* I. WAIBLINGER, of Fulneck, near Leeds, Member of the Royal College of Surgeons in London.

[With an Engraving.]

To the EDITORS of the MEDICAL and PHYSICAL JOURNAL.

Gentlemen,

ABOUT a year and a half ago, as the subject of the following case was diverting himself with some of his companions at the rural diversion of hop, spring, and leap, he fell suddenly backwards; he felt no pain, but found himself unable to rise; on being raised up by his companions, he found he could not use his right leg at all, though he made many efforts. From the circumstance of his feeling no pain, he had no idea that he had received any serious injury. His companions, as soon as a horse was procured, brought him to my house; on examining the knee, I found the *patella* was not in its place, but drawn up about three inches above the joint. The nature of the accident was now very obvious; the strong ligament which confines the *patella* to the tuberosity at the upper end of the *tibia*, was completely torn through, and the action of the strong extensor muscles inserted into the upper part of the *patella*, constantly drew it upwards. The indication then plainly pointed out, was to overcome the action of the muscles inserted into the *patella*. As I knew of no bandage adequate to this purpose, and as I expected some inflammation and tension would come on, which would for the present prevent any tight bandage being used, I applied a common roller round the thigh, rather as a placebo, than from any expectations I formed of its use; and a lotion of the *aqua lythargyr. acetat, &c.* to be frequently applied.

With the view of attaining the object of overcoming the action of the extensor muscles, and bringing the *patella* as near

as poſſible to its proper ſituation, I invented the bandage of which I herewith ſend a drawing and deſcription; it has this recommendation, that it is not a mere ſpeculative idea, but its utility is eſtabliſhed by the complete ſucceſs attending its uſe in the above caſe. The young man is now perfectly well; the *patella* is in its proper place, and he is able to uſe his limb as well as ever he did in his life. I believe accidents exactly ſimilar, are but rare; but I am perſuaded, that the bandage may be uſed with equal ſucceſs in fractures of the *patella*. Admitting the difficulty of bringing the fractured parts of the bone into ſuch cloſe contact, as to form an oſſeous union; yet, ſurely, the nearer they are brought into contact, the leſs time will be required to form a ligamentous union. There are ſome little improvements which may be added as circumſtances require; but as they will not alter the principle of the bandage, I ſhall not enter into them at preſent.—If the caſe related be found deſerving of a place in your Repoſitory, I ſhall continue to furniſh you occaſionally with ſome *practical obſervations.* I am,

Your's, &c.

I. W.

No. 1. The bandage as applied.—No. 2. The ſame in profile.

a, A leather ſtrap, three inches and a half in breadth, lined with ſoft waſh leather, and ſufficiently long to go round the limb above the knee, as is repreſented in No. 1; is faſtened with three ſmall buckles and correſponding ſtraps, as at *b*.

c, A ſtrap of the ſame kind, faſtened round the leg below the calf, the prominence of the gaſtrocnemic muſcles preventing its being drawn upwards, faſtened or laced tight with a leather thong on the underſide, as at *d*; and being ſo far from the ſtrap *a*, gives room for the elaſtic ſpiral ſpring to act, which is contained in the ſtrap *e*.

e, A ſtrap thirteen inches long, firmly faſtened to the broad ſtrap *a*, and contains an elaſtic wire ſpring in the middle part of it, as at *f*, which ſpring may be made to act at pleaſure, by tightening or ſlackening the ſtrap at the buckle *g*, which is inſerted into the upper part of the ſtrap *c*.

Under the edge of the ſtrap *a*, is a hard ſubſtance faſtened in, properly ſtuffed, reſembling in ſize the patella, is rather concave at the lower edge, that it may more eaſily hitch on to the convexity of the patella, as is ſhewn in the drawing at *h*.

N. B. A pad of wool or tow, was worn under the ſtrap *e*, where it croſſes the joint, to prevent excoriation.

To

To Dr. BRADLEY.

DEAR SIR,

THE following Caſe, which, during a conſiderable part of its progreſs paſſed under your notice at the Univerſal Diſpenſary, will not, I flatter myſelf, be deemed unworthy a place in the Medical and Phyſical Journal. It exemplifies, I think, the good effects of two powerful articles of the Materia Medica, *cold affuſion* and *lead*, in diſeaſes of the ſpaſmodic claſs.

I am, your's, with reſpect,

Walbrook, Aug. 15, 1800. H. CLUTTERBUCK.

Sarah Jones, aged ten years, reſiding in Ray-ſtreet, Cold-bath-fields, was attacked with ſymptoms of Cholera in July, 1794; on the following evening ſhe complained of univerſal pain of the limbs and trunk, and the next day began to be affected with ſpaſms in various parts, occurring at uncertain intervals: The ſymptoms of Cholera now diſappeared. Various antiſpaſmodic remedies were employed for the ſpace of a fortnight, but without any permanent advantage. She had taken opium in large and repeated doſes, both by the mouth and in clyſter; wine and other ſtimulants had been adminiſtered in conſiderable quantities; bliſters had been applied freely; and mercurial ointment had been rubbed into the back and neck in ſuch quantity, as to produce ſoreneſs of the mouth. On the 1ſt of Auguſt the ſymptoms were as follows.

I found her ſitting up in bed with her head ſtrongly bent back on her ſhoulders, in which ſtate it had continued without intermiſſion for the laſt two days; her countenance was expreſſive of great diſtreſs; every five or ſix minutes the ſpaſms increaſed in violence, occaſioning exceſſive pain, and forcing her to ſcream aloud; and once in four or five hours a general convulſion came on, in which her body was ſo forcibly incurvated backwards, as to cauſe it to reſt almoſt entirely on the head and heels (*opiſthotonos*). This uſually laſted about half an hour, during which ſhe retained her ſenſes perfectly, crying out with the violence of the pain ſhe endured. She deſcribed the ſpaſms as beginning at the pit of the ſtomach, and ſpreading thence, around the ſides, to the muſcles of the back and neck. She complained of much head-ach, and had had little or no ſleep for ſeveral days. She had no appetite for food. The tongue was ſlightly foul, and there was not much thirſt; the pulſe at the wriſt was quick, and remarkably ſoft; the ſkin felt flaccid, and there was conſiderable tendency to ſweating, though with-

out much increaſe of heat. During the laſt twelve hours ſhe had taken a grain of ſolid opium every half hour, and her mouth was at this time under the influence of the mercury which had been rubbed in. The opium neither produced any remiſſion of the pain or ſpaſms, nor did it induce any tendency to ſleep.

It was now reſolved to try the effect of cold affuſion; and for this purpoſe ſhe was taken into the cellar naked, and ſeveral baſons of the coldeſt pump water we could procure were daſhed with force over the back and neck: the effect was ſurpriſing and inſtantaneous. From the firſt application, the ſpaſms almoſt entirely ceaſed. She ſmiling, ſaid, "I am quite eaſy now." After a few applications of the cold water, a ſhivering came on, and ſhe begged to be returned to bed, when a deſire for food was expreſſed, which ſhe took freely, and ſoon after fell into a ſound ſleep.

On the following morning we found her free from pain; ſhe had ſlept well, and eaten heartily. The muſcles of the neck continued ſomewhat rigid, but not ſo as to bend the head backwards. In the courſe of the day, there appeared a ſlight tendency to a return of the ſpaſms at times; and this was the caſe for ſeveral days after. The application of the cold water was, therefore, directed to be repeated three times a day; and as its effect was apparently diminiſhed by habit, it was rendered ſtill colder by the addition of ice, procured from a neighbouring confectioner.

Within the ſpace of a week, the muſcles of the back and neck ceaſed to be ſpaſmodically affected: The patient, however, ſtill complained of violent pain about the region of the ſtomach, ſpreading thence to the ſides, and recurring at uncertain intervals, generally twice or thrice daily; theſe pains were manifeſtly aggravated whenever the cold affuſion was repeated. In other reſpects, the patient was free from complaint, enjoying her appetite and natural reſt.

It was now attempted to relieve the ſpaſmodic pains at the ſtomach, by opium and ſimple ſtimulants; but theſe never produced the deſired effect, though exhibited in large doſes; and they manifeſtly increaſed the diſpoſition to ſpaſm. Camphor, given frequently in doſes of four grains, produced no effect on the pains, but was followed by a general efflореſcence on the ſkin. The metallic ſalts were exhibited by turns with better effect, the ſpaſmodic pains wearing off gradually under their uſe: it was not, however, till the approach of winter, that they ceaſed to recur altogether. It is remarkable, that the patient bore large doſes of the vitriols of copper and of zinc, (as much as two grains of the former, and five of the

the latter) without having ſickneſs induced; yet, a ſingle grain of opium never failed to excite head-ach and nauſea. It was generally obſerved, that when the metallic ſalts induced ſickneſs, the pain at the ſtomach was the ſooner relieved.

After paſſing the winter without any of her former complaints, except occaſional pains at the ſtomach, but which did not materially affect her general health; this ſame patient, in July following, became again ſpaſmodically affected, but with ſymptoms varying ſomewhat from the preceding attack. The muſcles of the neck and back were at times affected, but in a much leſs degree than formerly. Some or other of the voluntary muſcles were generally in a rigid and contracted ſtate; ſometimes, however, they were all free from ſpaſm. The muſcles ſituated on the fore-arms were thoſe moſt commonly affected, the hands remaining cloſely ſhut, except the thumbs and fore-fingers, which ſhe had always the free uſe of. Sometimes ſhe had a perfect uſe of her hands for a ſhort time, then again they became ſuddenly contracted. When forcibly opened, which occaſioned conſiderable pain, they remained rigid, but cloſed again by ſlow degrees; marking the ſpaſmodic ſtate, as well of the *extenſor* as of the *flexor* muſcles. Different ſets of muſcles were affected at different times. Sometimes the head was drawn awry for an hour or two; or the mouth was violently diſtorted. At others, the eye-lids were forcibly ſhut. Two or three times in a day, or oftener, ſhe became generally convulſed, talking wildly and incoherently at the time. Theſe fits uſually laſted about half an hour.

Cold affuſion was again made trial of, but without its former good effect; and as it never failed to occaſion diſtreſſing pain at the pit of the ſtomach, its uſe was not perſiſted in. Opium always ſeemed to do harm, by increaſing the irritability, already in exceſs. Calomel was alſo employed, ſo far as to occaſion ſoreneſs of the mouth; but the ſymptoms were manifeſtly aggravated by it.

Conſidering that the diſeaſe viſibly conſiſted in a too great diſpoſition to contraction in the voluntary muſcles, and that *lead*, in its operation on the ſyſtem, produces ultimately a reverſe effect to this; finding, too, that the ſpaſms were aggravated by mercury, a ſubſtance which ſeems to be oppoſed, in its mode of action, to lead; and that little advantage was gained by the uſual tonic remedies, it was determined to try the effects of *lead*. A quarter of a grain of the acetite of lead (*saccharum saturni*) was therefore exhibited four times a day, and continued for the ſpace of three weeks, with little intermiſſion. After it had been uſed for the ſpace of four or five days, a conſiderable amendment was obſervable. The fit ceaſed to return, and

and the partial ſpaſmodic contractions were much reduced in violence and frequency. At the end of the period above mentioned, the lead began to manifeſt its uſual deleterious effects on the ſyſtem; pains reſembling rheumatiſm were felt about the ſhoulders and fore-arms, and a weakneſs of the wriſt was apparent; coſtiveneſs, with pain in the bowels, likewiſe took place: On this account the lead was diſcontinued, eſpecially as the returns of the ſpaſms were now exceedingly ſlight and rare.

After a fortnight had elapſed, an increaſe of the ſpaſms took place, and the patient appeared relapſing faſt into her former ſtate. The lead was again therefore had recourſe to, and within a week was followed by the ſame good effects as at firſt, the diſorder being much mitigated in violence, but not leaving her entirely, nor did it do ſo till the return of winter, when the ſymptoms altogether, though gradually, diſappeared.

Although the uſe of the *saccharum saturni* was continued for upwards of two months, it did not now produce any ill effects on the ſyſtem. I had an opportunity of knowing, that the diſorder did not return the following ſummer; nor had any ill conſequence ſucceeded the employment of the lead, which was never given in greater quantity than above ſpecified.—I may add, that I have experienced the ſafety and advantage of this remedy in many other caſes of ſpaſmodic affection.

To the Editors of the Medical and Phyſical Journal.

GENTLEMEN,

THE ſucceſsful treatment of infectious Catarrhal Fever muſt be intereſting to ſociety at large; and more eſpecially perhaps in naval and military ſervice, wherein there are ſo many occaſional cauſes occuring to its production. I am,

GENTLEMEN,

Your very humble ſervant,

G. BELLAMY, Surgeon.

Spencer, Portſmouth Harbour,
July 20, 1800.

An infectious Catarrhal Fever which exiſted with different degrees of violence on board His Majeſty's ſhip Bellerophon, from the beginning of March to the end of April, 1797, I believe to have ariſen from the following cauſes:

1ſt. The ſeaſon of the year, which was particularly moiſt with raw coldneſs, and a bleak eaſterly wind, while we were fitting

fitting at Spithead for foreign ſervice; ſhortly after which the diſeaſe took place.

2dly. The fatigue of the people in a haſty equipment, and the conſiderable addition of various ſtores, by which the ſhip was much crowded, preventing a free circulation of air, and aſſiſting the ill influence of that from the atmoſphere; which, whether it brought a diſeaſe *sui generis*, diſtinct in its form, and immediately acting on the body, prediſpoſed for its reception; at leaſt, acted as a debilitating cauſe, whereby the body became ſubject to fever, and marked by thoſe ſecondary ſymptoms, of affections of parts of the body moſt eaſily influenced by the occaſional cauſe, i. e. cold and moiſture. Indeed, I rather think that at all times, though the catarrh be the prominent feature, that it is not the eſſence of the diſeaſe; and that it ſhould rather be conſidered as fever with catarrh; that the former ſhould be the object of treatment, and that the pulmonic and other ſymptoms ſhould only be conſidered as of a ſecondary nature; that they ſhould not contradict the treatment of the fever, only when they become violent, and point out the neceſſity of ſome ſudden relief for the prevention of abſceſs of the lungs.

This was the almoſt uniform train of ſymptoms: The patients came in the morning, ſeveral together; complained of being taken ill in the night, ſome few of having gone to bed rather unwell; but always the alteration from health to ſickneſs was ſudden. Languor and deſpondency, nauſea, ſometimes vomiting; a ſenſe of cold and exhauſtion, (nothing like rigors ſucceeded by ſtrong febrile heat); great pain of the head and loins; giddineſs, almoſt drawing their limbs after them; obliged to be ſupported in the more ſevere caſes; hollowneſs of the eyes, with blackneſs of the eye-lids; fœtid breath, ſhort cough, and pain of the cheſt; pulſe quick and ſmall, tongue whitiſh and trembling. When the fever was abated, or gone off, there was a long continuance of cough and debility; and in a few, the induction of chronic diſtempers; one of dropſy; the diſpoſition to typhus was too plain. The indications of cure appeared to be:—Firſt, The removal, or correction of the oſtenſible cauſes; for which purpoſe the different parts of the ſhip, wherever bad air might be confined, or generated, were emptied, fumigated with the nitrous gas; waſhed, dried by fires, and then waſhed with lime and vinegar. The lower gun-deck was alſo fumigated, as directed, with the nitrous gas, whilſt the men were in their hammocks; and theſe meaſures were often repeated. The ſick birth, and bedding of the ſick, daily the ſame, unleſs when prevented by the violence of thoſe pulmonic ſymptoms which the gas always provoked. The ſick were,

were, as much as poffible, feparated from the fhip's company, and every care ufed that none but the nurfes fhould attend them. And here is the ftrongeft affurance of the infectious nature of the fever; for when all thefe occafional caufes had been removed, and when even we had changed our climate by going to Lifbon, the number of fick did not leffen, though the violence of the difeafe certainly abated; therefore, the permanence of the difeafe, and the number of men who fucceffively fell ill of it, muft have been from contagion. The perfons of the fick were alfo kept as clean as poffible, and thofe who were confined to bed were put apart.

Secondly, After having evacuated the primæ viæ by a gentle emetic, and procured a ftool or two, which removed fo much offending matter, I gave, every fix hours, four ounces of wine and one of lemon juice, as a cordial antiputrefcent draught, and plenty of a pectoral decoction, which was alfo well acidulated. Where the oppreffion of the cheft was violent a pediluvium; and at night promoted gentle perfpiration by antimony and opium. In ftill more urgent cafes, either of debility or pectoral affection, repeated blifters between the fhoulders, and on the breaft, from which immediate relief was experienced. When the pectoral complaints were abated, and debility confiderable, tonics feemed to be indicated, but did not anfwer, as they always brought on pain of the breaft, &c. with increafed violence; and as I found the above draught very efficacious, I forbore the bark, &c. till a ftate of thorough convalefcence, which was affifted by an addition of wine, gentle exercife, and regulating the bowels.

With any other difpofition of fever venæfection would have been proper, where pulmonic inflammation was dreaded. In the cafe of thofe who remained long affected with cough, &c. when the fever was entirely gone, blifters and pectoral drinks were relied on, and proved equal to expectation, for I had the fatisfaction not to lofe a man.

To the Editors of the Medical and Phyfical Journal.

GENTLEMEN,

I Do not remember in your valuable Journal, any difcuffion where death was occafioned by poifon; if you think the following will affift your ufeful intentions, its infertion will much gratify your conftant reader,

FREDERIC THACKERAY.

Emanuel College, Cambridge, July 18, 1800.

The subject was a child eighteen months old, in perfect health on the 15th, at eight in the evening: About half past eight was seized with vomiting and purging, succeeded by coma of some hours, and died violently convulsed at three in the following morning. As the cause was unknown, the child had only taken a little magnesia and rhubarb. I was desired to examine the body with Mr. R. Crispin, an able surgeon, at Royston, and opened it thirty hours after its death. The exterior of it exhibited nothing unusual; no swelling nor discolouration on any part of it. The vessels of the intestines in various parts, were very full, as if minutely injected. The stomach had its external vessels very much distended with blood, dark and very fluid, and a blush pervaded every part of its external coat. It was moderately distended with air, and about two ounces of a black viscid fluid, with several clusters of mucus or coagulable lymph in it. The inner surface of it was very red; and in some parts, particularly about the pylorus, it had a lividness approaching to mortification, and was studded throughout with a white powder, several grains of which were matted with some mucus, with which some experiments were made; and when exposed to the flame of a candle, fumes and a garlic odour were emitted, proving it was arsenic; of which there can be no doubt, as the girl afterwards confessed that she had given arsenic to the infant.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

FATAL accidents from the bites of venomous serpents are far from being uncommon in the island of Martinique; two instances of the sort have happened in the neighbourhood of this city within the last six months, terminating in death in twenty-four hours after the accident.

It would seem inexplicable, from natural causes, why Martinique, St. Lucia, and (according to some) the small island of Bequice should, of all the numerous islands composing this Archipelago, be infected with these venomous reptiles. Le Pere du Tertre, in his excellent History of the Antilles, Vol. ii. p. 319, relates a tradition of the native Caribbes, as to the origin of venomous serpents in Martinique and St. Lucia: They informed this Historian, that their forefathers waging a war of extermination with the Arrouagues, a nation of Terra Firma, the latter, unequal in war to their Caribb enemies, who made frequent incursions upon their coasts, bethought themselves of a singular expedient to be revenged on the islanders. They collected in baskets and earthen pots a number of venomous serpents, which, transporting to Martinique, there gave

them their liberty, in order that, without departing from their own coaſt in future, they, the Arrouagues, might make an eternal war againſt their Caribb enemies.

However this may be, Nature has not abandoned man without remedy againſt the deadly venom of this reptile, the fecundity of which is extraordinary, it not being uncommon to find ſixty or ſeventy young ones in the belly of a female, of which I have been an ocular witneſs in one caſe. The negroes long accuſtomed to the iſland, have not, in general, much apprehenſion from the bite of a ſerpent, (I have known ſeveral who have been bit repeatedly) whilſt thoſe who come here from the other iſlands, have as much dread of theſe reptiles as the Europeans. Two inſtances of perſons bit by venomous ſerpents have occurred here, both of whom recovered. The firſt was John Payne, a negro, reported to be in a dying ſtate about noon of Feb. 20, 1796. On viſiting him, he was found to be affected with the moſt dreadful convulſions, each acceſſion of which threatened to terminate his exiſtence. He had been bitten the night before, but being exceedingly intoxicated he had not paid any attention to it. When the effect of the ſpirits he had taken went off, he found his arm ſtiff, painful, and ſwelled up to the axilla; to theſe ſymptoms quickly ſucceeded nauſea, laborious reſpiration, and convulſions. The marks of the venomous fangs were obſervable over the abductor policis of the left hand, which, with the arm and breaſt, was conſiderably inflated. The patient was inſenſible for ſome time after every convulſion; and when ſenſible, he expreſſed the utmoſt dread of inſtant diſſolution. His anxiety was great, his pulſe was ſlow, ſmall, and irregular. Topical treatment of the envenomed points was judged uſeleſs after a lapſe of fourteen hours, the lymphatic glands and veſſels being evidently ſtrongly affected; the limb and breaſt were, however, bathed with hot lime juice and rubbed with camphorated Caſtor oil. A large doſe of Venice treacle with volatile aromatic ſpirit and vitriolic æther was adminiſtered to the patient, waſhed down with warm rum and water, which was repeatedly given him in ſmall quantities. After ſeveral frightful convulſion fits, his pulſe began to riſe, the reſpiration became more free, ſigns of a diaphoreſis appeared, and hope began to influence his mind. A ſecond doſe of the medicine was given him with the hot drink, and he was well covered with hot blankets; about two o'clock he turned himſelf on his ſide, fell into a warm ſweat, got ſome refreſhing ſleep, and was perfectly well next day.

The ſecond Caſe was that of Utill, a negro, who has often experienced the like accident. March 26th ult. he was bitten by a venomous ſerpent in the middle and external part of the left fore arm, whilſt cutting graſs near to the country-houſe of Admiral Lord Hugh Seymour, ſituated a mile from this town. His Lordſhip being near the ſpot, immediately made a ligature

on the limb, applied ſome ſpirit of hartſhorn to the wounds, gave the negro ſome of the ſame internally, mixed with rum and water, and ſent him off to this Hoſpital. The punctures made by the poiſonous fangs were evident; the arm was painful, and a little ſwelled up to the axilla; and the patient, tho' undiſmayed, (a matter of great conſequence in ſuch circumſtances) experienced ſome anxiety and pain of the left breaſt. Several ſcarifications were inſtantly made around the punctures, over which a cupping-glaſs was applied, and three or four ounces of blood extracted; the part was then ſpunged with warm water, the limb and breaſt were bathed with Caſtor oil, and a ſmall poultice was applied to the part, compoſed of roaſted limes, a little ſalt and black pepper, and ſome of the powdered leaves of a ſpecies of Ariſtolochia (*Anguicida, Lin.*) the Lianne, a ſerpent of the French iſlands. Some run with ſpirit of hartſhorn was given him internally, and he took ſome of the infuſion of the Ariſtolochia internally. He was prevented from going to ſleep, to which he ſeemed diſpoſed, and which is ſaid to be very dangerous in ſuch circumſtances, and remained exempt from any accident.

It is here proper to obſerve, that the Ariſtolochia was uſed externally and internally in this Caſe, on account of the ſtrong impreſſion on the mind of the negro, of the ſpecific power of that ſimple againſt the venom of the ſerpent, rather than from any rational dependance on it; as however effectual it may be when uſed freſh and ſucculent, that applied in this inſtance ſeemed nearly inſipid from having been long dried and carried in the pocket of the patient as an amulet, according to the ſuperſtition of the negroes. Beſides the ſnake-wood, or Ariſtolochia, in moſt general uſe by the negroes here againſt venomous bites, there is a ſpecies of graſs, called Pie de Poule, or chicken-foot, which grows very commonly here; this, beat up with a little ſalt and ſpirits, is applied as a remedy to venomous bites. Of this I have had no experience; but I have often uſed this ſimple with much benefit as a detergent and antiſeptic in foul ulcers. Arſenic and the volatile alkali are ſaid to be uſed by ſome with ſalutary effects againſt theſe accidents; wood aſhes and oil are alſo ſaid to be uſed in the ſame intention: This is recommended by the Pere du Tertre, as well as a poultice of quick-lime with oil and honey; garlic externally applied, and given internally; the green leaves of tobacco, bruiſed, and applied to the part; whilſt theriaca and cordials are to be adminiſtered; and the patient is to be reſtrained from taking large draughts of any liquid, or from the dangerous indulgence of ſleeping, to which there is generally much propenſity.

I am, Gentlemen,

Your moſt obedient ſervant,

LEONARD GILLESPIE, M.D.

Naval Hoſpital, Fort Royal, Martinique,
May 7, 1800.

A Case of the Cure of Cancer of both Breasts, the one ulcerated, the other schirrous.

By WILLIAM NISBET, M.D. Fellow of the Royal College of Surgeons, Edinburgh; now of London: and Mr. ISAAC OLIPHANT, Member of the Royal College of Surgeons, London.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

HAVING devoted my attention of late years to a particular line of medical practice, the subject of which has been deemed one of the chief opprobria of the profession; and from a conviction that this general opinion is by no means well founded, and that Cancer is equally curable as any other species of swelling or ulcer, it is incumbent on me, in entertaining such new sentiments, to support them by the evidence of incontrovertible facts.—I shall therefore state the following case, one of the most melancholy that can occur, as an introduction to a number of others which shall be occasionally given to the public, through the medium of your useful Miscellany.

Mrs. G. the wife of Mr. G. a coal merchant in Tottenham Court Road, aged upwards of 40, about two years ago, felt a hardness and swelling of her left breast, with all the usual symptoms of schirrous or incipient cancer. For this complaint she first consulted Mr. Ford, who advised, in that stage of the disease, the application of leeches, which was done without effect. She then put herself under the care of Mr. Cline, and continued to follow his prescriptions for the space of two months, not only with equal inefficacy, but with a gradual aggravation and increase of the disease, which was attended with the most severe darting pains and burning heat. In this unhappy state, anxious to obtain relief, her next resort was to the advice of Sir James Earle, who told her that it was a stony cancer, and incurable, declining at the same time to prescribe any thing, but humanely offering (being ignorant of her real circumstances in life) to give her a letter of admission to the Middlesex Hospital. At the request of Dr. Budd, to whom her husband had been recommended, she was next seen by Mr. Cooper, who concurred in opinion with Sir J. Earle, that it was incurable, and declined any connexion with the case. Thus deserted by the Faculty, the patient was induced, by the over-persuasion of friends, to put herself into the hands of an ignorant empyric, under whose applications the disease passed rapidly into the stage of ulceration, and made horrid progress. In consequence of the severity of her sufferings, she was soon again obliged to solicit the assistance of a regular practitioner, and she was accordingly

visited by Mr. Andrews, surgeon, of Greek-street, along with another gentleman, whose name the patient does not know. On their concurring in opinion that her case was incurable, and that nothing could be done for her relief, she at last had recourse to the advice of Mr. Oliphant, of Percy-street; who, with a proper anxiety for his patient, and a zeal at the same time directed by humanity, which every practitioner of medicine should possess, soon after visiting her, and finding that tho' her complaints were palliated, no progress was made towards a cure, advised to call in Dr. Nisbet, whose attention, he understood, had been particularly devoted to this malady.

On my first visit, I found the disease far advanced in its ultimate stage, a short description of which will be sufficient to convince every practitioner of its fatal and apparently speedy termination. An extensive foul spreading ulcer occupied the whole surface of the left breast with thick reverted edges covered with the particular sordes characterizing such sores, and occasionally pouring out quantities of blood from the eroded vessels. Besides the substance of the breast, itself totally diseased, the cuticular glands all round were hard and schirrous to a considerable extent. In the axilla, the glands were swelled to the size of a pigeon's egg, and the whole of that side was tight, contracted, and knotty, with clusters of swelled lymphatics in different parts of it. The patient could hardly use the left arm, and was totally unable to lie on that side. An erysipelatous inflammation diffused itself for a considerable way beyond the actual limits of the disease. On examining the right breast, I found a large schirrous formed in it, which had not yet arrived at an active state. The hectic fever was strongly formed, and the patient's health rapidly declining.

Mr. Oliphant was of opinion the disease was incurable, unless a complete sloughing of the whole breast took place; and I could not, in such a situation, flatter with strong hopes; determined, however, to follow the plan which I have generally found successful, I communicated my sentiments to him, who, with that liberality which every man of real science possesses, acquiesced, and gave every freedom in pursuing it.

The treatment was accordingly begun about the beginning of July, and continued for upwards of six weeks. During its progress, the curative fever was raised to a height sufficient to subdue the morbid action in the diseased parts, and was even attended with some symptoms that required mitigation. Several of the swellings disappeared during the height of the fever; in its progress, the discharge became daily more bland, whitish, and purulent; and immediately on its decline, the sore assumed marks of healing, which have proceeded so rapidly, that it is now within the size of a shilling of being completed. The structure of the breast, (at least what remains of it) is reduced

to its natural ſtate; the ſwellings of the arm-pit and ſide are totally removed, and a complete cure in every part ſeems effected.

From the firſt applications that were made, the pain and burning heat from the diſeaſe gradually departed; no ſloughing of any portion took place; but a gradual increaſed abſorption removed the altered organization, and reduced the breaſt to its proper form. This ſhrinking and abſorption were very remarkable long before any marks of healing appeared, and this proceſs ſeemed to be the laſt induced by the action of the remedy.

The above facts will be ſufficient to ſhow, that the principle of cure is different from any that has yet been attempted; but at preſent I ſhall enter into no further detail of it than ſay, that it conſiſts in no ſecret remedy or ſpecific, but proceeds on thoſe general principles which apply to every form and ſtage of the malady.

I have been particular in ſtating the medical advice this patient received, that the Gentlemen mentioned may themſelves make the neceſſary enquiries concerning the iſſue of it.

I am, GENTLEMEN,

Your's, &c.

St. James's Street,
Sept. 22, 1800.

W. NISBET.

MONTHLY REPORT[1] of DISEASES,

Admitted under the Care of the PHYSICIANS of the FINSBURY DISPENSARY, St. John's Square, Clerkenwell.

From Auguſt 20 to September 20, 1800.

Continued Fever	54	Chloroſis and Amenorrhœa	10
Small-Pox	8	Menorrhagia	3
Cholera	20	Cephalæa and Hemicrania	11
Diarrhœa and Dyſentery	62	Dropſy	5
Sore Throat	3	Vertigo	2
Rheumatiſm	12	Pleurodyne	3
Pleuriſy	1	Nephralgia	2
Pulmonary Conſumption	5	Colica Pictonum	2
Catarrh	1	Hemiplegia	1
Cough and Dyſpnœa	8	Eryſipelas	1
Aſthenia	21	Ptyaliſm	1
Dyſpepſia	6	Urinæ Incontinentia	1
Gaſtrodynia and Enterodynia	9	Prurigo and Chronic Eruptions	15
Hypochondriaſis	3		
Hyſteria	3	Acute diſeaſes of Infants	18

Diſeaſes of the alimentary canal continue to be the reigning epidemics. The cholera, which was unuſually prevalent during the latter end of July, and the greater part of Auguſt, is now on the decline, and the diarrhœa and dyſentery have ſpread themſelves in an equal proportion; each diſorder thus obſerv-

ing, in the moſt exact manner, its natural progreſs and ſeaſon. The cholera rarely occurs in this country, except during the warmeſt period of the ſummer; and its frequency and violence correſpond, for the moſt part, with the intenſity and duration of the atmoſpherical heat. As a hot ſummer immediately *excites* the cholera, ſo it *predisposes* to diarrhœa and dyſentery, which uſually make their appearance on the acceſſion of the chilling damps of autumn. The immoderate uſe of fruit, to which theſe maladies are commonly attributed, may, in a few inſtances, contribute to produce them; but in by far the greater number of caſes, there has been no reaſon whatever, on minute enquiry, to aſcribe their origin to matters taken into the ſtomach. In conformity with the ſame vulgar notion, it has been reported, that a quantity of damaged foreign wheat, ſaid to be mixed with the bread now made uſe of in London, has alſo had its ſhare in promoting theſe diſorders. The cholera of the preſent ſeaſon, in ſeveral inſtances, proved equally violent with that which is deſcribed by Sydenham, as prevailing in the Summer of 1669; and it afforded ſome idea of the ſeverity of this diſeaſe in the tropical regions. It often commenced with a very acute pain at the pit of the ſtomach, or in ſome part of the abdomen, which generally continued till the bilious vomiting and purging began to abate. Theſe evacuations, or ineffectual convulſive efforts to produce them, were almoſt inceſſant; and in the ſhort intervals between them, the patients laid in the moſt diſtreſſing ſtate of nauſea, pain, and anxiety, with an almoſt total deprivation of muſcular power. The pulſe was much hurried, weak, and often irregular. The ſkin was ſcarcely hotter than natural, but frequently bedewed with a clammy moiſture. The tongue was parched and foul, and there was a great complaint of thirſt. In the majority of perſons, however, who were affected with this diſeaſe, it proved of a more mild nature; and in one only did it terminate fatally. The patient was a young woman, about 18 years of age, who for ſome time before had been affected with a ſlight degree of leucophlegmatia, the conſequence of amenorrhœa; after ſeveral hours of ſevere vomiting and diarrhœa, ſhe ſuddenly became comatoſe, and died in leſs than twenty-four hours afterwards. The violent ſtraining in the act of vomiting had, probably, produced an effuſion within the head, an accident rendered the more likely by the particular ſtate of her habit.—The ſymptoms of cholera afford a very good example of what phyſicians call the vis medicatrix naturæ; and its medical treatment is founded on this principle: In general, it is only neceſſary to give large quantities of mild liquids, in order to dilute the acrid bile, and to render its diſcharge the more eaſy. When the evacuations have ceaſed, an opiate affords great comfort to the patient, by removing the nauſea, pain, and uneaſy feeling which remain, and by indu-

cing a refreſhing ſleep. When the diſeaſe, however, is extremely violent, or long continued, and is attended with great debility, it becomes expedient to add ſome ſlight cordial to the liquid, which is drank, and to check the evacuations by means of opiates; fomentations to the ſtomach and abdomen, may alſo be employed with advantage. A great irritability of the alimentary canal often remained for a conſiderable time, the patient rejecting all kinds of aliment, having a foul tongue, and complaining of continual nauſea. To remove theſe unpleaſant conſequences, an emetic was preſcribed, and for ſome days afterwards aromatics, with ſmall quantities of opium; and then the uſe of any light bitter ſoon reſtored the ſtomach to its uſual functions.—In others, a diarrhœa continued, and ſometimes degenerated into a dyſentery. Indeed, the cholera, diarrhœa, and dyſentery, are very nearly allied, and paſs into each other by inſenſible gradations; the two latter eſpecially, are often ſo much alike, that, except in a certain number of marked caſes, which point out the peculiar circumſtances of their diſtinction, it is doubtful whether we ought to affix to the diſeaſe the one name or the other. This, however, is of little importance in their treatment: In general, twelve or fifteen grains of rhubarb taken every morning for a few days, removes the complaint both ſafely and effectually. A pill containing one grain of opium and one of ipecacuanha, may at the ſame time be taken each evening on going to bed. The diet ſhould conſiſt of nouriſhing emollient liquids, as weak broths, rice gruel, &c. In the caſes more purely dyſenteric, and attended with much pain and tenſion of the abdomen, a ſolution of neutral ſalts every morning has a more powerful effect than the rhubarb, in removing the ſcybala retained in the inteſtines. There were ſome inſtances of very ſevere head-ach, and much general diſorder occaſioned by the diarrhœa having been prematurely checked by opiates and aſtringents. In all caſes indeed of this complaint, but eſpecially when it prevails epidemically, the means of ſtopping it ſhould be uſed with great caution.

The continued fever, or typhus, although conſiderably increaſed in frequency during the preſent month, has become more mild in its ſymptoms; the furious delirium in particular, with which it was attended during the heat of the ſummer, and which gave it at that time the name of the *brain fever*, having now, in good meaſure, ſubſided. A relaxed ſtate of the bowels, at preſent, moſt generally attends it; and, within due bounds, appears to be ſalutary. Thus, the obſervations of the immortal Sydenham, in regard to the influence of the reigning epidemic on the other contemporary diſeaſes, and the importance of keeping in view this fact in their medical treatment, receive, in every ſucceeding ſeaſon, additional confirmation.

W. W.
J. R.

To Dr. BRADLEY.

DEAR SIR,

WE are obliged to Dr. Wells * for communicating to the public, the observations which have induced him to adopt the opinion of those, who hold that Erysipelas of the Face is a contagious disease. This opinion was never advanced by the late Dr. Cullen,† though noticed by him. "This disease," says the Professor, "is not commonly contagious; but as the disease may arise from an acrid matter externally applied,(1) so it is possible that the disease may sometimes be communicated from one person to another".(2)‡ I will now give you his commentary on this text, as I wrote it down, I believe, at the same time that Dr. W. took his notes.

(1) "The sting of a bee or wasp, I have seen produce all the effects of erysipelas of the face; and it is probable, that acrimony may be communicated from one person to another."

(2) "An hospital physician, of sufficiently just information, says, that they have had instances of the contagious nature of the disease, several persons being affected in the same room or ward. That it has been so communicated is a fact; but I have a hundred negative instances, in which only one in a family has been affected, though there was a free communication between the patient and the other branches of the family."

I observe, that in my copy of the Professor's text book, I have drawn a line through the above paragraph; but whether by the Professor's direction or not, I cannot call to mind.

Now, what are we to think of Cullen from the text and the commentary? He admits the fact communicated by the hospital physician, but alleges, that he has a hundred negative instances to prove the contrary. Has not every one seen a hundred instances of typhus, in which only one in a family has had the disease? But should we be justified in asserting, that such a disease was not contagious? Dr. Wells's conclusion is, that the Professor was "either unconvinced of its truth, or was unwilling to acknowledge it;" but, if the Doctor had continued to peruse the whole of the chapter, he would have found the following passage: "We have hitherto considered erysipelas as, in a great measure, of a phlegmonic nature; and

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* Med. and Chirurg. Trans. V. ii. p. 213.
† Ib. p. 214.
‡ First Lines, 1779, V. ii. p. 8. (not 228, as in Med. and Chirurg. Trans. V. ii. p. 222.)

agreeably to that opinion, we have proposed our method of cure. But it is probable, *that an erysipelas is sometimes attended with, or is a symptom of, a putrid fever*;(3) and in such cases, the evacuations proposed above may be improper, and the use of the Peruvian bark may be necessary;(4) but I cannot be explicit on this subject, as such putrid cases have *not* (5) come under my observation."(6) p. 14.

My commentary on the above paragraph is as follows:—

(3) "The carbuncles in the plague are a kind of erysipelas: If a symptom of putridity, it is probable that there is always a mixture of putrescency in erysipelas."

(4) "Or indeed our principal remedy; though, in true inflammation, highly improper."

(5) "Hardly."

(6) "In some cases the bark has been employed, not only with safety, but with apparent advantage; but such cases are of rare occurrence: It has been found necessary in the London hospitals. In great cities there are more sources of putrefaction; and in such cities, hospitals are chiefly found; whence the greater frequency of such cases in such situations."

Dr. Wells's cases, therefore, confirm the opinion of that excellent teacher, whom, however I may differ from him on the theory of fever, I shall venture to call the best writer on medicine of the eighteenth century, that "it is probable that erysipelas is sometimes attended with, or is a symptom of, putrid fever." Dr. W's two first cases, which occurred in May 1796, appear to me to have been instances of typhus erysipelatosa, the erysipelas typhoides of Sauvages.* Of the nature of those cases of erysipelas of the face, which occurred in August and December, I do not presume to judge, my experience, like that of Cullen's, having been hitherto of the negative kind. Such of your Correspondents as keep notes of their cases, may, perhaps, assist us in determining their nature. On the 7th of October, I had a case of erysipelas of the face, and another on the 9th of January, 1797. Typhus was the prevailing disease of September. I do not remember ever to have lost a patient in erysipelas of the face. Whether this has been the result of accident, or to my having seldom, if ever, employed venæsection, confining myself to natron vitriolatum, hydrargyrum, and antimonium tartarisatum, with the occasional use of cinchonæ, is uncertain. What is the nature of erysipelas of the face in the fen countries? Are not the diseases of London, in some measure, still affected by the low grounds of Essex?

I take

* Nosol. i. 450.

I take the liberty of submitting to the consideration of Dr. Wells, whether, if the Erysipelas of the Face be at any time a really contagious disease, we may not expect to find, as in most contagious maladies, persons of all ages in the same family affected with it. I may add too, that "persons who have once laboured under this disease," as Cullen observes, "are liable to returns of it." Now, in contagious diseases, the reverse has been observed. Those who have had the small-pox are so seldom liable to be affected a second time, that every one considers himself as secure from the disease. The same person very rarely has the chin-cough; and those who have gone through typhus, are certainly less liable to receive the infection.

In the volume which contains Dr. Wells's Observations, is a reflection which, as a botanist, I cannot allow to pass without animadversion:* "Bitter medicines," says Dr. Fordyce, whose ingenious observations on our art merit the thanks of all his brethren, "such as the bark of the cinchonæ, several species of the artemisia of Linnæus, who, it may be observed, *has constantly endeavoured to mislead students in medicine*, by taking the name of the genus from the species which has the least effect, or a dissimilar effect from the greatest number of the species in it, &c.†" Linnæus was not without his weaknesses; but nothing could be farther from his intention than to mislead the medical student, as is evident from his Materia Medica, Amoenitates Academicae, Flora Lapponica, Flora Suecica, &c. &c. Artemisia, Absinthium, and Abrotanum, all Greek names, distinguished as many genera in the system of Tournefort; Linnæus very properly reduced them to one. "Nomina generica poetica, deorum ficta, regum consecrata, et promotorum botanices promerita retineo," is one of his canons in his *Philosophia Botanica*.‡

To Artemisia he gave the preference, in honour, as he supposed, of the Queen of Casia,§ though it more probably received its appellation from the same origin as Artemis, the Greek name of Diana, that is, from *Artemees*, safe; both the herb and the goddess being believed to preserve the mother in child-birth. Pliny says, "Ab Artemide Ilithyia, quoniam privatim medeatur foeminarum malis."‖

Chesterfield, Aug. 21. JONATHAN STOKES.

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* Dalech, 1599.
† Med. and Chir. Trans. V. ii. p. 325.
‡ Ib. p. 170, n. 237.
§ Ib. p. 171.
‖ Hist. Nat. xxv. c. 7, p. 636.

Dr. DOMEIER, *in Answer to Dr.* DYCE'S *Letter.**

SIR,

I Aſſure you, that it is not without unpleaſant feelings that I undertake to communicate to you publicly, in a language which I am not accuſtomed to write, a caſe like your's, which I treated ſucceſsfully: And I certainly ſhould not expoſe in an unpoliſhed, and even perhaps not faultleſs ſtyle, what were my thoughts on the indiſpoſition in queſtion, if it was not for the ſucceſs I met with during my treatment of it.

It would be a particular ſatisfaction to me, to hear that the propoſed plan was likewiſe to anſwer your wiſhes; I then ſhould be the ſurer of being pardoned for the unphilological way in which I exhibit the ſtory of my patient.

It was at Berlin, in the beginning of May, 1799, when a French clergyman, forty years of age, of a melancholy diſpoſition, and conſtant ſedentary life, came to me for my advice. His complaint was an uncommon thirſt of eighteen months ſtanding; ſince the beginning of which, till then, he had remarked nothing elſe wrong in his conſtitution, but his growing thinner, and in conſequence of it, weaker in bearing bodily fatigue. To his beſt remembrance, he had never had any illneſs in his life; and after a minute examination, I concluded that all his animal functions were in perfect order. His appetite was ſtrong, his tongue clean, and his ſleep good, when not interrupted by the violent thirſt. His melancholy turn of mind he attributed to his preſent ſituation, living but poorly, and far from his own home; but his friends told me that he was, when in France, of the ſame diſpoſition.

When he applied to me, he ſaid he had already been to ſeveral phyſicians, who gave him no medicine, anſwering, that there was no remedy for him; he therefore employed whatever remedies his friends recommended to him, but all proved uſeleſs. The quantity of liquids he ſwallowed was enormous. He could hardly put the glaſs out of his hand, before he vehemently deſired to drink again. He moſtly drank water, for he could afford nothing elſe; but whatever liquid he could get was deſirable, viz. tea, coffee, beer, wine, milk, &c.

The quantity of urine he made, did not, even to the fourth part, correſpond with the quantity he drank; beſides, he eat a great deal of watery nouriſhment, as ſoups, fruits, vegetables, &c.

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* See Medical and Phyſical Journal, No. xvi. p. 506.

&c. a circumstance which first of all attracted my attention, for this uncommon quantity of fluids ought to remain somewhere, as his stools were perfectly regular; for great thirst is a common symptom in profuse evacuations, as in copious diarrhœas, diabetes, and even hæmorrhagies.

Having, therefore, no other probable indication to found the cure upon, I thought that the insensible perspiration was too much increased, and that the only plan for a cure would be to check this, if I possibly could, and to order the patient a beverage which has the virtue of quenching thirst in the smallest quantity.

To answer the first purpose, I desired the patient to dress much cooler than he was accustomed to do; to use the cold bath, and to dry himself very negligently afterwards; to put his feet from time to time into cold water, and keep on his stockings for a considerable time afterwards; to expose himself to the cool evening and morning air, often even to a thorough air, and to be very thinly covered in bed. His dinner was to be quite cold; nothing warm was allowed him to drink.

To answer the second purpose, (it being known that acidulous beverages extinguish thirst much better than any other kind) I thought that a mineral acid would answer still better, and in consequence prescribed him sulphuric acid, to be mixed with water to a pleasant degree of acidity, and to drink of it as much as he pleased.

After he had followed this advice with exactness about a fortnight, he found himself a great deal better; he then had intervals of about an hour, in which he did not desire to drink at all.

I altered nothing, and he was very willing to continue the same plan. After full three weeks, his complaint was entirely gone. However, I thought it prudent to make him continue the same regimen for a longer time, and leave it off by degrees; but when he had continued it for a very short time, after his recovery, he thought himself in perfect security, got tired of it, and left off all the prescriptions at once.

He remained well for a few weeks, when the unnatural thirst began again; and thinking that this proceeded only from the weather, which had become warmer, he did not immediately apply to me. But the thirst increased, and came to the same unpleasant degree it had done before. He then applied to me again; upon which I ordered him to do just the same as at first. He did, and got well again, and even in a shorter time. He continued now for a long while to apply one or the other of the prescribed remedies, especially the cold bath

bath, and remained perfectly well till April, 1800, when I saw him last.

Now I am perfectly aware that this is only one observation, and therefore not to be termed an experience, and that it would be wrong to pretend with certainty that my conclusion was sure, and that my remedies, in consequence, removed the disease; however, there is a great probability in their favour, as both times the indisposition was done away exactly in the same manner, and in a short time after the remedies were applied; and besides, the patient had altered nothing in his manner of living to which the cure could be ascribed.

It would be a particular satisfaction to me if the treatment which succeeded with my patient should likewise answer your wishes; and, I dare say, it will not be uninteresting to the readers of the Medical Journal, to make it known in this way.

I have the honour to be, Sir,

Your most obedient servant,

London, Aug. 27, 1800. W. DOMEIER.

To the Editors of the Medical and Physical Journal.

Gentlemen,

It will give me great pleasure if the enclosed letter, originally transmitted to the Board for Sick and Wounded Seamen is inserted in your valuable Journal. I am fully aware that it contains little that can be considered in any degree new; but it may answer the purpose of exciting a more extended attention to Vaccine Inoculation amongst that part of my profession attached to the Navy, as I am myself, from indisposition, at present personally incapable of prosecuting the object my letter holds up to view. A copy of it was sent to Lord St. Vincent, in consequence of the Magnificent having some communication with the Cumberland, on board of which ship the Small-pox existed; and the reception it met with from his Lordship, proves him to be fully as capable of promoting those branches of science which have a tendency to meliorate the condition of man, in honouring with his attention useful suggestion, as of repressing the power of his enemy. But notwithstanding his Lordship's decided approbation, local circumstances, connected with the Magnificent, wrested from my hands the pleasure of actually introducing Vaccine Inoculation into the Navy.

I am, Gentlemen,

Your obedient humble servant,

Edgecombe-street Stonehouse,
22 August, 1800. JAMES VEITEN.

To the Commissioners for Sick and Wounded Seamen.

Gentlemen,

THE Vaccine Inoculation has, ſince my return from the Weſt Indies, attracted very general notice, and ſeemingly, very deſervedly, as it apparently offers the moſt eminent and permanent advantages to ſociety. Inquiry at the Small-Pox Hoſpital, which I viſited early after my arrival in England, and reading, have convinced me of its utility; and I feel animated by a deſire, provided the Board approve it, of extending its advantages to the Magnificent, by inoculating, in a gradual and limited way, all thoſe men who have not ſuffered from Small-pox, as a ſecurity againſt its irruption at any future period. The Cow-pox, from every idea I have been able to collect relative to its nature, appears not to be communicable from the perſon inoculated to another, unleſs through the medium of inoculation; it likewiſe ſeems not to be ſtrictly a puſtular diſeaſe, of courſe not loathſome either in point of ſmell or otherwiſe; and the perſon who has been ſubjected to its action, is not only ſecured againſt its influence, but is alſo inſulated as to the power of the variolous contagion; and, to crown all theſe advantages, the fever and exceſſive excitement conſequent to its abſorption, ſcarcely merit the appellation of diſeaſe— Circumſtances recommending it in the fulleſt degree for naval practice, as the neceſſarily crouded ſituation of men on board of ſhip would render the introduction of a contagious diſeaſe, however mild, into a healthy man of war, with the view of ſuperceding the attack of one more virulent, active, and deadly, ſubject to be conſidered an unpleaſing and dangerous clue for the medical man to wind from; but the diſeaſe in queſtion is not liable to ſuch an objection. Independent of ſecuring our naval exertion from any depreſſion from Small-pox, during the time of war, there is a period approaching when ambition will be taught its limits, and we may ceaſe contending for our ſecurity and independence; it is then that this practice will ſhine forth with peculiar luſtre and advantage, and prove one great means of reſtoring rapidly the depopulation neceſſarily flowing from war. Men who have fought the battles of their country are drawn from all, and a great many from the remoteſt, parts of the three kingdoms, where the prejudices of education, religion, and ignorance, operate as injuries to ſociety, from the bulk being in ſome degree guided by ſuch principles; it therefore becomes a national and material point to gain an acceſſion of opinion in favour of this mild mode of inoculating, which ought not to be allowed to paſs unobſerved by thoſe men, provided

vided it were introduced into the navy, and the reduction of prejudice, eventually arising from examples of its utility, would adhere to the mind, and, at the conclusion of the war, would prove the means of disseminating its advantages widely amongst the descendants of those who have served, and are likely to become themselves in their turn the bulwark of our country. Our commercial interests, as well as gratitude arising from the brilliancy of our naval victories, and a knowledge of the number who have fallen during the pending contest, demand the extension of a fostering hand to this order of men.

The discovery of the circulation of the blood, which for a time injured the fame and reputation of the immortal Harvey, is a wonderful example of the narrowness and perversion of ignorance; and the opposition which the introduction of the inoculation for the Small-pox met in London and throughout England, is fresh in the memory of thousands. Hence the necessity for annihilating prejudice in bringing about a revolution of so much importance, and pointing out, by every possible means, the track proper to be followed; for what gutta serena is to the eye, prejudice is to the mind.

I am in possession of the vaccine virus; but I conceive it my duty to avoid any application for its being carried into effect, until I receive the opinion of the Board, who may perceive dangers I am not aware of. I am,

GENTLEMEN,

Your very humble servant,

JAMES VEITEN.

Magnificent, off Brest,
July 26, 1800.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

MY prediction, respecting the future reputation of the *Fox-glove*, will, I have no doubt, be eventually accomplished. In this town and neighbourhood the plant is now in more general use than any other healing agent; and either in a solitary or in a combined form, it is employed in almost every case of *increased vascular action.*

In *pneumonic inflammation*, and in *active hæmorrhagies*, it certainly possesses powers approximating to specific; and even in cases of *continued fever*, of various types, I have repeatedly witnessed the most beneficial effects from its administration. This

This high character of the plant has not been acquired by the exertion of any authority in its favour, but by the striking proofs which it continues to display of its curative powers. In opposition to much preconceived opinion, and much strong prejudice, I know that it has forced itself upon the notice of many of my friends, and now forms a very principal instrument of their practice. This general employment of the *Digitalis* has excited much attention to the collecting of the leaves, and to the mode of preparing them for use; and I imagine that the Medical Gentlemen of this place, keep the plant in as high a state of perfection as it can be met with in any part of the kingdom.

I have observed, in another place, that the proper dose of a medicine is just that quantity which will produce the desired effect; and that the proper dose of the *Digitalis* is that which, by gradually bringing the system under its influence, will so regulate the motion of the heart, as to reduce the pulsations of the artery to a given number.

I think that the choice of the preparation to be employed may be left to the discretion of the prescriber; for if his principal object be the diminution of vascular action, I know that he can very certainly accomplish this end, either by means of the *powder* or the *tincture* of the plant; any disputation, therefore, about which of those two we ought to employ, has always appeared to me unnecessary.

For upwards of twelve months I have prescribed the *Digitalis* very extensively; and during the last six of that period I have had very ample experience of its powers. I am now fully persuaded, that, by a judicious management of the plant variously combined, I can obviate *pneumonic inflammation with as much certainty as I can arrest the progress of an intermittent fever by means of the bark of the cinchona.* Again, I am persuaded that, if *pulmonary consumption be divided into four stages, the Digitalis will very certainly cure the three first, and as certainly alleviate the distressing symptoms of the last.*

I am aware that the introduction of a new remedy is a task difficult and dangerous; for I am aware that there are men, who will not only oppose, but censure with much asperity, the application of any healing power which has originated with, or been patronized by, a rival practitioner. This narrow principle is the reproach of individuals, and the disgrace of science. Some time ago, in consultation, I recommended a trial of the *Digitalis* in a case of *phthisis*. It was contended that the plan would avail nothing; nay, that its effects would be highly injurious. I asked my medical friend, if he had ever employed the *Fox-glove* in cases of *pulmonary consumption?* "I have not,"

not" was his reply. "Which of us, then," I rejoined, "is beſt entitled to decide on its effects: you, who have never exhibited it at all; or I, who have adminiſtered it a hundred times?

In my eſtimation, a man becomes truly contemptible when he either betrays a haughty impatience of every improvement upon ſubjects of ſpeculation, or when, by an ungenerous exertion of overgrown authority, he is captiouſly ſolicitous to doom to diſregard every opinion which is not his own. It is certainly not unreaſonable to demand that the *Digitalis* ſhould have the ſame fair trial which other remedies have had; and that it ſhould *be exhibited in a genuine form, in the doses, and in those diseases, for which it has been recommended by its advocates.*—The ſubſtantial qualities of the plant will thus be very certainly aſcertained. It is admitted on all hands, that the *Digitalis* is a plant of much activity; it ſurely, then, becomes a matter of high intereſt to know, whether its powers are uniformly and poſitively deſtructive; or, whether it be poſſible to apply them to ends the moſt uſeful and ſalutary. If its powers be found to admit of a beneficial application, let them command the protection of men of ſcience: if they be injurious, let them be doomed to diſuſe by the ſame authority. Let not the diſcuſſion of the queſtion be embarraſſed by narrow jealouſies, but let it aſſume an open complexion, diſtinguiſhed by accuracy of experiment and cloſeneſs of obſervation. In diſquiſitions which embrace a large portion of the deſtiny of man, it is pitiful to ſee talents employed in peeviſhly frittering away the attainments of their cotemporaries, rather than in a manly and diſpaſſionate purſuit of uſeful knowledge. I venerate every improvement, the tendency of which is to ameliorate the condition of us all; but I beg leave to expreſs my aſtoniſhment, that the ſubjects of *Vaccine Inoculation*, and the *antisyphilitic virtues of the Nitric Acid*, ſhould engroſs the attention of almoſt all the medical part of Europe; and that the inquiry reſpecting the curative agency of the *Digitalis* ſhould ſtill be confined to a few names and to a few places. Since the introduction of the *variolous contagion* by means of *inoculation*, very few, comparatively, have periſhed by that diſeaſe; ſince the period that the *antisyphilitic* powers of *mercury* were generally acknowledged, a very ſmall proportion of thoſe labouring under *venereal complaints* have fallen victims to their malignity: But it is ſaid, that *eighty thousand* of the inhabitants of this iſland periſh annually by *pulmonary consumption*; and yet an inveſtigation of the means by which this gigantic evil may be obviated, excites only a very partial intereſt among the profeſſors of the healing art.

I tranſmit

I tranſmit to you the following additional caſes, in which the *Digitalis* was ſucceſsfully employed; and am,

GENTLEMEN,

Your's, obediently,

Bradford, Aug. 15, 1800. GEO. MOSSMAN.

CASE XII.—Sept. 24, 1799, N. H. æt. 19, for ſix months previous to this date has laboured under *phthiſical ſymptoms*, accompanied by a conſiderable *enlargement of the abdomen.* She complains of a teazing cough, difficulty of breathing, alternate chills and heats, great thirſt, loſs of appetite, ſtrength and fleſh. Her abdomen is much tumefied, and ſhe experiences much ſoreneſs from preſſure; her urine has very generally been high coloured, and her complaints have been all along attended by an occaſional irregularity in the ſtate of her bowels; her pulſe is 120. She has had a reſpectable medical attendant, and by him ſhe has been treated with ſmall doſes of the *Fox-glove*, and ſome preparation of *ſteel*; from which, however, ſhe thinks ſhe has not derived any conſiderable advantage. I adviſed her diet to conſiſt principally of preparations of *milk*, *eggs*, and *animal food*; I alſo directed *frictions* to be applied to the region of the abdomen; and ordered for her the ſubſequent formula:

℞. Calomel gr. xv. Fol. Digital. *recenter pulverizat.* ʒj. Miſce et adde Conſerv. Cynoſbat. q. s. ut fiant pilulæ lx.—Sumat j. quater in die.

Sept. 27th. She is now obviouſly under the influence of the *Digitalis*, more in conſequence, I apprehend, of what ſhe took previous to my ſeeing her, than from the quantity of the plant which ſhe has taken ſince. She complains much of giddineſs, and a dimneſs of viſion; ſhe experiences a faintneſs at her ſtomach, approximating to a ſlight nauſea; her pulſe is 58, with a little intermiſſion; her cough is better; and ſhe thinks that ſhe is ſomewhat diminiſhed in ſize. The rigors and ſucceeding heats, ſhe ſays, have left her; and her thirſt is conſiderably abated.

Oct. 2d. Yeſterday morning ſhe was ſuddenly ſeized with vomiting, which continued for the whole of the day, and abated towards the evening, without her having recourſe to any antidote. Her pulſe is 50, with very conſiderable intermiſſion; her abdomen is perceptibly leſs; and in other reſpects ſhe is much the ſame as at my laſt viſit.

Oct. 11th. The vomiting had recurred on the 7th, with greater violence than before, and had continued for the ſpace of nearly forty-eight hours. When ſhe was firſt ſeized with vomiting, ſome anti-emetic medicine might have been tried; and

 although

although I have very frequently seen vomiting produced by the system being incautiously overcharged with *Digitalis*, yet as I never witnessed any attendant phænomena which excited in me any considerable degree of alarm, I was not particularly ambitious to obviate this effect. Dr. WITHERING has mentioned as antidotes, *brandy and laudanum*; but he seems to place his chief dependence on the application of a *blister* to the region of the stomach. My patient's pulse is now reduced to *thirty-eight strokes of the artery in a minute*, and though tolerably full, is extremely irregular; the tumefaction of her abdomen is nearly gone; every other morbid symptom is evidently on the decline; she appears now to be approaching to a state of convalescence. Her pills are to be repeated, and she is to take only two of them daily.

I did not see her again till the 26th, when I found her very much improved. She told me, that the vomiting had again returned; and though not with the same violence as it had done before, yet that it had continued to recur occasionally for a week. I had previously remarked, that every attack of vomiting had been followed by beneficial effects; and it was apparent that this last had been succeeded by a very perfect state of convalescence. Her appetite is good; she is daily improving in strength; her pulse is 50. She expressed some fear of a relapse, and she purposes to take a pill or two every day till she is completely restored. About a month afterwards I saw her in health, and following her ordinary employment: I am informed, however, that about the middle of March last she again became indisposed, and again had recourse to her pills. What symptoms she laboured under, I know not; but from the circumstance of her having again applied to her former medicine, it is probable that she thought her complaints similar to those with which she had formerly been afflicted. How long she took the *Digitalis* a second time, and what its effects were, I have never heard; I am informed, however, that she was prescribed to by another physician. She is since dead.

CASE XIII.—Jan. 17, 1800. E. B. æt. 18, was seized on the 14th with violent rigors and other symptoms of pyrexia. She now complains of an acute pain in her left side; a hard, dry cough; great difficulty of breathing; and excessive thirst. If she attempts to lie down on either side, her cough is much aggravated, and she instantly experiences a sense of suffocation. She is supported by pillows, in a posture almost erect. Her tongue is much furred; her urine is high coloured; her bowels are tardy; her pulse is 110. She has been bled in the arm, and she has taken saline medicines from her medical attendant. I advised

advifed a dozen *leeches* to be applied to the region of the *thorax*, and the greateft number to be applied in the vicinity of that part of her fide where the pain was fo acute. I next ordered her *chest* to be covered with a very large *blister*: I then directed her to live on *toast and water* exclufively, but to drink even that fparingly; and I prefcribed for her a grain of the *Digitalis*, with a fmall portion of the *Pulv. e Tragacanth. C.* to be taken in a folution of *Sal. Nitri* every three hours.

Jan. 18th. The blood difcharged by means of the *leeches* was very confiderable, without affording her much apparent benefit. The *blister* has operated well, without materially relieving the difficulty of breathing, which is now uncommonly diftreffing; her thirft is extreme; her cough is inceffant, and is accompanied by a dark-coloured, greenifh expectoration; her tongue is loaded with a thick, brown fur; her countenance is marked by a fingular anxiety, and there is an apparent tendency to delirium; her pulfe is 120, with a flight intermiffion. She has juft had an alvine evacuation. I advifed a continuance of her medicines and regimen.

Jan. 19th. Laft evening, towards the approach of midnight, fhe experienced an aggravation of all her fymptoms; and to thofe already enumerated was fuperadded a very harraffing *singultus*. After paffing a moft dreadful night, fhe funk into repofe about four or five o'clock this morning; fhe continued in that ftate for feveral hours, and awoke refrefhed. She has had no confiderable evacuation by the kidnies, the bowels, or fkin; and yet there is a very evident abatement of every morbid fymptom. Her difficulty of breathing is much relieved; her cough is lefs teazing, more free, and the matter expectorated looks better than before; her countenance is more natural; her tongue is much more clean. She can now lie down in a fituation approaching to a horizontal one, and can, without much uneafinefs, turn a little to either fide. Her pulfe is reduced to 96 ftrokes in the minute.

Jan. 20th. She has had an eafy night, and again fhe has enjoyed fome refrefhing repofe in the morning; fhe breathes with much eafe, and fhe can, without much inconvenience, lie down on either fide; her cough continues to be more relieved, and fhe expectorates freely a mucus of a laudable colour; her urine is more pale, and depofits a fediment; her pulfe is 65. I enjoined the ufe of her medicine three or four times a day for a few days longer, as alfo her low regimen; I then took my leave of her. I faw this girl about a fortnight afterwards in the moft complete health.

CASE XIV.—Feb. 4, 1800. G. L. æt. 35, on the evening of this date was ſeized with rigors, and other febrile ſymptoms. A reſpectable practitioner was conſulted, who immediately directed him to have an *emetic*. This draught operated well, but ſoon after its operation the patient expectorated a little blood. His pulſe was 120.

Feb. 5th. This morning he took an aperient draught with the *Pulv. Prophylact.* which was followed by powders compoſed of *Sal. Nitri*, *Pulv. Antimonial. Lond.* and *Pulv. e Tragacanth. C.* One of thoſe powders was directed to be taken in a proper vehicle every two or three hours. His pulſe and other ſymptoms were as before.

Feb. 6th. He had taken ſix of the powders above preſcribed. He complained of an acute pain in his left ſide, attended by an extreme difficulty of breathing, diſtreſſing cough, and bloody expectoration. He had a *bliſter* applied to his cheſt, and was ordered four grains of the *Digitalis* in ſix powders, to be conſumed in twenty-four hours.

Feb. 7th. He had taken his powders with the *Digitalis*. His pain was relieved by the *bliſter*. His breathing was ſtill laborious, and the hæmoptyſis continued to recur as before. The powders were repeated.

Feb. 8th. I ſaw this patient for the firſt time this morning, accompanied by his medical attendant. He laboured under a well-marked caſe of *pneumonic inflammation*. In addition to the common phænomena which characteriſe that diſeaſe in its moſt alarming form, I had reaſon to apprehend a ſupervention of delirium. A ſingular rapidity marked his looks and actions. His pulſe was 120; his reſpiration was laborious; his thirſt was extreme; he continued to expectorate pure arterial blood. I directed him to drink frequently of cold water; I repeated his powders, with an additional quantity of the *Pulv. Antimonial. Lond.* to be taken in a ſolution of *Sal. Nitri*.

Feb. 9th. He had paſſed a much eaſier night. The pain of his ſide had abated conſiderably; and the difficulty of breathing was much relieved. The expectoration of blood, however, did not appear to be leſſened in the ſmalleſt degree, though his pulſe was reduced ſo low as 70 ſtrokes in a minute. His medicines were repeated.

Feb. 10th. This morning exhibited a phœnomenon which ſtruck us with aſtoniſhment. His pulſe was full, regular, and *beat only forty strokes in the minute*. Every morbid ſymptom had begun then to diſappear; and the hæmorrhage from his lungs was now much leſſened, though he ſtill continued occaſionally to diſcharge blood. The medicines were repeated.

Feb. 11th. He appeared in a ſtate of convaleſcence. His pulſe

pulse was still *forty*. We discontinued his powders; and he began to take a julep composed of *Conserv. Rosar. &c.* acidulated with the *Acid. Vitriolic. Dilut.* He took this julep till the 16th, at which period all his complaints had ceased. His pulse, however, still continued at *forty*; and it was not till some time afterwards that it recovered its usual velocity. This patient has ever since enjoyed the most perfect health.

Case XV.—June 27th, 1800, B. C. ætat. 50, was suddenly seized with violently marked symptoms of *pneumonia.* An intelligent practitioner in the neighbourhood was consulted for him, but what medicines he gave him I know not. On the evening of July 1, I visited him, and found him labouring under symptoms very similar to those described in Case 13. I pursued a similar practice, and with equal success; a detail of the minutiæ is therefore unnecessary: but I ought to observe, that in this case the morbid symptoms were combated with much difficulty; the issue of the disease hung in suspense for upwards of a week; *and during the whole of that period he took daily from eight to twelve grains of the Digitalis in its most active state.* I visited him every morning, and with the most anxious impatience I expected the usual operation of the plant. It at last exerted its influence over him, and all his complaints disappeared. A few days ago I saw him in health.

Case XVI.—August 4, 1800, J. B. æt. 35, was suddenly seized with symptoms of *pneumonic inflammation.* The whole region of the thorax was attacked by violent shooting pains; his thirst was great; the difficulty of respiration was extreme; his pulse beat 100 strokes in the minute. His apothecary took from him twelve ounces of blood, which exhibited a thick sizy surface. During that day he took powders composed of *Sal. Nitri* et *Pulv. Antim. Lond.* and in the evening a grain of *Digitalis* was added to each powder, and they were directed to be taken every three hours. At this period he complained of a most tormenting pain in his left side, which was covered with a *blister.*

Aug. 5th. This morning every morbid symptom was apparently increased. The pain of his side, he said, was much abated; but he now experienced the most excruciating sensation immediately under the *sternum.* The same quantity of blood was taken as before, and the same medicines were continued.

Aug. 6th. There was still an aggravation of the morbid symptoms. His pulse was 110; his thirst was extreme; his tongue was covered with a dark coloured fur; the difficulty of

of reſpiration was great; his urine was remarkably high coloured; he laboured under the conſtant recurrence of a bilious diarrhœa. Blood was again taken from his arm.

Aug. 7th. The operation of venæſection was once more performed. I ſaw him, for the firſt time, this morning. His pulſe was irregular, and beat 120 ſtrokes in the minute; he laboured extremely in his breathing. He was laid upon his back, ſupported by pillows, nor could he for a moment bear any other ſituation. His cough was hard, hollow, inceſſant; and when he expectorated any thing, it reſembled a dark green or brown ſerum. His countenance appeared ſunk, and indicative of approaching diſſolution. He faultered in his ſpeech, and there was a ſupervention of a ſlight delirium. I covered the whole ſurface of the *thorax* with a *bliſter*, and I preſcribed the following formula:

℞. Fol. Digital. *recenter pulverizat.* ℈ſs. Opii puri pulv. gr. iij. Pulv. Antimonial. Lond. ʒſs. Sal. Nitri ℥j. tere et divide in chartulas xii.—Sumat j. quaque 2nd. hora in cyatho aquæ gelidæ.

Aug. 8th. Appearances this morning were rather more favourable. His pulſe was reduced to 110, and was more regular; nor did he experience the ſame lancinating pains in his cheſt. His *bliſter* had excoriated the whole ſurface of the *thorax*; and had induced a moſt violent *ſtrangury*, which was relieved by the exhibition of *mucilages*. He had taken his medicines with great regularity; and the cool regimen, enjoined at the beginning, was ſcrupulouſly obſerved.

Aug. 9th. He had paſſed a better night than uſual. His pulſe this morning was reduced ſo low as 96. He had not had ſo many bilious evacuations; but there was an appearance of yellowneſs in the *tunica albuginea* of his eyes; and his tongue began to be covered with a yellow cruſt. His reſpiration was certainly more eaſy; his cough was neither ſo conſtant, nor ſo painful; and the matter expectorated had aſſumed a more laudable colour and conſiſtence. A violent *ſingultus* had attacked him in the night, and ſtill continued to harraſs him extremely. I directed him to have the following medicines:

℞. Calomel. Fol. Digital. *recenter pulverizat.* a. gr. ſs. Pulv. Antimonial. Lond. gr. iij. Conſerv. q. s. ut fiat bolus, quaque 2nd. hora ſumendus cum Decoct. Nitros. ℥j. I alſo adviſed an *anodyne* at bed time.

Aug. 10th. He had paſſed an eaſier night. The *hiccup* was not ſo violent, nor did it recur ſo frequently as yeſterday; his pulſe was reduced to 84 ſtrokes in a minute; his tongue was more clean and moiſt. He expreſſed a deſire to have a little food. He was now obviouſly under the influence of the *Digitalis.*

talis. Indeed, I am inclined to aſcribe to its operation the occurrence of *singultus.* This laſt ſymptom continued occaſionally, for ſeveral days, to harraſs him, but was repeatedly, and very effectually obviated by the exhibition of *Sp. Nitri Dulc.* His pulſe began, from this period, to be reduced in point of frequency, till it approached its uſual ſtandard. Every morbid ſymptom diſappeared, and he was reſtored to the moſt complete health.

[To be continued.]

Strictures on the usual Practice in Strangulated Hernia. By Mr. Geoghegan.

To the Editors of the Medical and Physical Journal.

Gentlemen,

HAVING ſucceeded in reducing ſeveral inſtances of Strangulated Hernia by the taxis, where the ſymptoms were ſo alarming as to point out the neceſſity of immediate operation; I take the liberty of communicating, through the medium of your Journal, the practice which I purſued, and the principles upon which it was founded. I am the more deſirous of exciting the attention of practitioners to this diſeaſe, from a conviction that the practice recommended by the lateſt writers of character on this ſubject, is productive of the moſt dangerous conſequences; Mr. Bell, whoſe work is in the hands of every ſurgeon, lays it down as a maxim, that we ought always to proceed to the operation, if after a few hours, two or three at the fartheſt, the remedies generally recommended do not prove effectual; and he does not think the operation, abſtractedly conſidered, attended with great danger. If we conſult the records of practice, ſurely we ſhall find a hoſt of evidence of the fallacy of this author's maxim; I am confident that the experience of every practitioner is in direct oppoſition to it; I have met with numberleſs inſtances, in which not only ſeveral hours, but days, have paſſed over before a reduction by the taxis could be effected in Strangulated Hernia, attended with ſingultus, vomiting of feculent matter, &c. and afterward the protruded parts were reduced without operation. Similar caſes have occurred to every experienced practitioner with whom I have communicated on the ſubject; and as to the queſtion, whether the operation is to be held as dangerous, abſtractedly conſidered, I

aver that it is imminently ſo. We know that the danger attendant on every operation of conſequence, turns as much upon the peculiarity of the patient's conſtitution, independent of the diſeaſe which it is intended to relieve, as on any other circumſtance; the moſt minute conſideration therefore ſhould be given to every means of relieving, before it is had recourſe to in any caſe. In the preſent inſtance, a ſubject in full health is ſuddenly laid proſtrate, attacked by a painful affection, which exceedingly deranges the entire ſyſtem, not habituated to it by gradual ſuffering; a deſideratum preparatory to an operation. Experience inſtructs us he can ill bear any violence; his inteſtines are to be expoſed to the air, a tendinous part to be wounded, and air may be admitted into the cavity of the abdomen; beſide the effects which a ſlow diſſection muſt produce on a ſubject juſt removed from a ſtate of health, ſurely nothing can be more obvious than that ſuch caſes are in principle exceedingly dangerous. The inſtructions which are given by Mr. Bell and Mr. Pott, as to the method of reducing by the taxis, appear to me not only imperfect but injudicious; they direct that the patient being properly placed, "the ſurgeon is to graſp the inferior part of the hernia with one hand, and puſh upwards, whilſt he endeavours with the fingers of the other to puſh forward the parts at the ſuperior part of the tumor." Let us for a moment conſider the ſtate of the parts; a portion of inteſtine lies without an aperture, through which it is too large to paſs; the queſtion then ariſes, what occaſions its bulk? Surely, the nature of the part, the touch, and all the circumſtances of the caſe, clearly evince it to be flatus, and ſometimes together with excrement and an inflamed inteſtine, whoſe functions are ſo far deranged that it cannot act upon its natural contents, ſo as to move them in their ordinary courſe. The abdominal ring is in nowiſe concerned in the diſeaſe, only that as it is too ſmall to admit of the return of the inflamed and inflated parts, it unavoidably girts them; and nothing can be more abſurd than the idea of relaxing it, as from its ſtructure it muſt be paſſive. Let us ſuppoſe a ring fixed upon the neck of an inflated bladder, and that it is deſired that the bladder ſhould be paſſed through the ring, could any thing be more erroneous than to endeavour to puſh forward, and upwards, or any way, without removing the air which occaſioned the reſiſtance? The caſes are ſimilar, and nothing can be more obvious than that every effort ſhould made to leſſen the bulk of the hernia, and none to puſh it through the ring; it will paſs in of itſelf after the air has been extricated. It is obſerved by thoſe authors, that a guggling noiſe is always heard on the paſſing up of the inteſtine, which they merely mention, but do not inſiſt upon, as the great and principal circumſtance to be attended

attended to in forming a juſt opinion of the mode of treatment. The mode of practice which I purſue, founded on the preceding principle, is as follows: I expoſe the entire body to the cold, naked, open the windows, &c. and apply cloths to the part, wet every ten minutes with a ſolution of muriated ammonia in vinegar and water; if ice can be procured, I prefer it. The patient generally complains much of the cold, and ſhivers, a deſirable circumſtance, as it induces ſuch a collapſe of the entire ſurface, as greatly to aſſiſt our intention of condenſing and expelling the air from its impriſonment, after about an hour ſpent in this way without touching the parts with the hands, or any effort by the taxis, as generally practiſed. Let the palms of the hands be applied to the ſides of the hernia, gently to preſs them towards each other, with a view to aſſiſt in propelling, not the inteſtine, but its contents, the air, &c. through the ring. In one inſtance, I ſucceeded in this way on the eighth day, in another on the ſixth, after the ſtrangulation had ſet in in both, attended with vomiting of feculent matter, hiccup, &c. Many efforts had been made in the uſual way of endeavouring to force the inteſtine upwards and forwards, which, I am of opinion, always exaſperates the ſymptoms. In another caſe, the diſeaſe had exiſted about twelve hours; the volume protruded was immenſe, and the ſymptoms ran exceedingly high; the patient was of a remarkably robuſt habit. After taking off about 20 ounces of blood, and having applied the cold ſolution for ſome time, I endeavoured with my hands to aſſiſt in extricating the air, but was unſucceſsful. Being obliged to go away, I directed that he ſhould remain naked, expoſed to the cold, and to perſevere in the cold fomentation. On my return, after half an hour, his rupture had diſappeared. He told me that he heard a noiſe as if wind had ruſhed out of it, and that it went up of itſelf. Some practitioners apprehend danger from the application of cold to a part ſo much inflamed; but the ſcrotum and ſac are ſecure intermediums to moderate its operations on the inteſtine; and experience proves that danger is not to be dreaded. From theſe conſiderations, I preſume, it is obvious that the directions given by moſt authors are not calculated to produce the deſired effect, particularly the operation of puſhing the inflamed and inflated parts through the ring, which is, *prima facie*, impoſſible; that the practice of condenſing and extricating the air, has a rational foundation; and that the ſole attention of the ſurgeon ought to be directed to that end.

I preſume it is underſtood that Bubonocele is the term of the diſeaſe I treat of.

EDWARD GEOGHEGAN,
Member of the Royal College of Surgeons in Ireland.

Dublin, Aug. 12, 1800.

To the Editors of the Medical and Physical Journal.

Gentlemen,

ON perusing your valuable periodical Work, I have observed a discordancy of opinion relative to the expediency of the extraction of the placenta, which has induced me to present you with a few observations on that subject.

Naturam expellas furca tamen usque recurret. Hor.

It will scarcely be thought necessary to trace the different opinions which have been advanced on this subject, from the remotest periods of antiquity to the present day; nor would a knowledge of the practice of the ante-diluvians, or even the method adopted by our first parents with regard to their children, illustrate the point in discussion; for as they were in a state of Nature, it is natural to conclude, (setting aside the interposition of Providence) that no manual assistance for the extraction of the placenta, at so early a period of time, was necessary; and if the human race had existed in a state of Nature to the present time, it is highly probable, there could have required no other aid for the extrusion of the placenta, than what was natural to every species of animal in their primordial state: and as the female of every animal in a state of parturition is possessed of a placenta, or substance analogous thereto, it might, on a superficial view, lead us to conclude, that no difficulty would arise from its retention amongst the brute creation, seeing they approach nearer to a state of Nature than the human; but, upon a more careful attention to their various stages of parturition, we shall find them labouring under certain difficulties, though, perhaps, in a less degree than what falls to the lot of woman.

It has been observed by various authors who have had opportunities of visiting the most uncivilized parts of the globe, where the inhabitants live in a great measure in a state of Nature, that the women suffer comparatively little with those of the European countries.*

The difference then attendant on human parturition is more ascribable to certain modes of living, and deprivations in society, than to any physical necessity, or curse announced by the

* Vide Long's History of Jamaica, Vol. II. page 380. "Their women are delivered with little or no labour; they have, therefore, no more occasion for midwifes than the female Oranoutang, or any other wild animal. A woman brings forth her child in a quarter of an hour, and goes the same day to the sea and washes herself."

the Deity to our firſt parents, as a puniſhment inflicted upon the fallen nature of man.*

There is no occaſion then to aſcribe evils to our firſt parents, which we daily bring upon ourſelves, nor blame the benevolent hand of Providence in cauſing us to go erect, though Dr. Oſborn, page 9th, ſays, the erect poſition of the human frame, that ſingular mark of pre-eminence, expoſes women to pain and difficulty in natural parturition, from which the ſubordinate quadruped is almoſt entirely exempted, by the horizontal poſition of her body. Surely ſuch an idea will never be generally credited; the cauſe muſt ariſe from circumſtances of a more adventitious nature, and not from any pre-eminence of poſture, or inevitable phyſical evil; even a ſuperficial view of the preſent ſtate of human nature will eaſily convince any one of the origin of this depravity.†

Whoever takes the trouble of collecting the various opinions advanced by authors on this ſubject, from the time of Hippocrates, will have reaſon to lament that this branch of midwifery ſtill remains a point unſettled amongſt accouchers; and as the event of the mother ſo often turns on a right or wrong mode of managing the delivery of the placenta, ſurely it will not be deemed an uſeleſs undertaking in me, to condenſe into a narrow compaſs the mode of practice I have hitherto adopted with ſucceſs.

On peruſing the books of Celſus, Ambroſe Parey, Mauriceau, Pugh, Deventer, Mawbray, Roederer, Aſtruc, Dionis, Burton, Chapman, Counſelo, Exton, Maningham, and Giffard, I find them recommending an early extraction of the placenta, ſome of whom adviſing the introduction of the hand, even before the diviſion of the funis, fearing the internal orifice of the womb ſhould cloſe and obſtruct the extraction; but this,

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† Dr Oſborne ſeems to rely much on the Moſaic account, that "in ſorrow thou ſhalt bring forth children." If this were the caſe, it would be applicable, in an equal degree, to every parturient female in all quarters of the globe; but this we find does not take place, for it is not very uncommon in this country, to obſerve a labour terminate with little or no appearance of pain, nor the leaſt degree of ſorrow, but ſometimes even emotions of joy may be obſerved upon the countenance. And we read in Wafer's Deſcription of the Iſthmus of America, page 360, that, "When a woman is delivered of a child, another woman takes it in her arms, within half an hour or leſs after it is born, and takes the lying-in woman upon her back, and goes with both of them into the river and waſhes them there." The Brazilian women have very eaſy labours, and as ſoon as they are delivered, they go to the river and waſh themſelves without harm. Vide Newhoff's Voyages, p. 151.

† See Hufeland on the Art of Prolonging Life, Vol. II. page 9, chap. 1; and Dr. Gregory's Comparative View, ſect. 1.

this, amongſt many other abſurd cuſtoms, is now entirely exploded. But as it is natural to ſuppoſe, that each practitioner in midwifery is ſtrongly enliſted to the practice of thoſe from whom he has been inſtructed in the art, we need not be ſurpriſed at the diverſity of opinions which ſtill prevail, nor even wonder at the various ſucceſs attendant thereon. A thorough knowledge of the anatomy of the gravid uterus in every ſtage of parturition, is an indiſpenſible requiſite to every accoucheur, and will prove a barrier againſt a hoſt of difficulties and embarraſsments which frequently occur in practice.

There are two oppoſite prevailing opinions at this day, reſpecting the moſt advantageous mode of delivering the placenta; ſome adviſing, in all caſes, the manual extraction immediately after the birth of the child; others* purſue a different plan, making gentle efforts by pulling at the funis for ſome time; and if this fail, the extraction is then accompliſhed by manual aſſiſtance.

There are a few, alſo, who think no harm enſues from truſting its extruſion intirely to Nature in every inſtance. Were it poſſible from ſuch a diverſity of opinions, to adduce a true eſtimate of the advantages and diſadvantages attendant on theſe various modes of practice upon the moſt enlarged ſcale, I fear more harm than good would be found to reſult from ſuch a calculation, if contraſted with a ſimilar computation, and where the woman was totally left without the leaſt aſſiſtance.

Though the exit of the placenta, were it left entirely to Nature, would ſeldom require manual extraction, yet, as the powers of the uterus are often limited, and as urgent ſymptoms ſometimes occur, it will generally be acknowledged, that the aſſiſtance of art, in theſe caſes, becomes equally neceſſary as in any branch of ſurgery. Soon after the birth of the child, the uterus in part contracts upon the ſubſtance of the ſecundines, by which inherent power of contraction, aſſiſted by the action of the abdominal muſcles, the placenta is generally expelled naturally in the ſpace of ten or fifteen minutes. When the efforts of Nature are all ſufficient to accompliſh this work in the above-mentioned time, it will be uſeleſs to obtrude the hand into the uterus for the purpoſe of extracting the placenta, before having firſt had reaſon to doubt the ſufficiency of the expulſive efforts of that organ. If after waiting the time above ſpecified, and the uterus aſſumes no diſpoſition to diſlodge its contents,

* Amongſt whom are Smellie, Hamilton, Baudelocque, Johnſon, Denman, White, Foſter, and Perfect.

contents, it may then be proper, after placing the patient in a horizontal position, to introduce one or two fingers of one hand up the vagina uteri, whilst with the other we take hold of the funis and make a gentle distension, by which means we shall be enabled to ascertain the state of the os uteri and situation of the placenta. If the mouth of that viscus should be found in a relaxed condition, and the placenta within reach of the finger, we need not despair of promoting its expulsion, by making a gentle pressure upon the abdomen with one hand, and cautiously pull* at the funis with the other, in a direction with the axis of the pelvis; this mode of acting will generally stimulate the uterus, and seldom fail to solicit the expulsion of the placenta. But when no flooding, or other urgent symptoms occur, and when the extrusion of the placenta does not follow, we may with safety desist from these gentle efforts, and wait even two, three, or more hours, before any further attempts are made for its extraction by artificial means.

When the placenta is thus detained, there is seldom any hæmorrhage during that interval; but when the pains recur, and the placenta becomes detached from the uterus, a degree of flooding will supervene, and our conduct must be regulated accordingly.

In cases where the placenta is only in part detached from the uterus, we may naturally expect a less discharge to ensue, than where the whole of the placenta adheres to that viscus; consequently, it will be more prudent to wait for the natural exclusion of the placenta in the latter case than in the former; it, however, not unfrequently happens, that the uterine actions are irregular, as in the case of flooding and syncope, or after a tedious labour; in which case, our conduct must be governed by attendant circumstances, and the quantity of blood lost in a given time. I would not have it understood, that every discharge of blood from the uterus is a sufficient justification for the immediate extraction of the placenta in every instance; sometimes a discharge of *coagula* will take place, in which case it becomes necessary to ascertain the quantity and quality of the discharge before manual assistance be attempted. An uterine hæmorrhage taking place immediately after the birth of the child, and continuing without intermission to discharge florid blood from the mouth of the uterine vessels which open into its cavity, is, in itself, sufficiently alarming, and calls for immediate assistance by art.

It

* It is a rule with me, never to exert a greater force upon the funis for the purpose of extracting the placenta, than what is adequate to support its own weight, lest a rupture or laceration should take place.

It ſometimes happens, that only a circumſcribed portion of the placenta is detached from the uterus, whilſt the membranes adhering around may confine the blood for a certain time and prevent hæmorrhage.†

In every caſe requiring manual extraction, the ſeparation of the placenta from the uterus ſhould be undertaken with the greateſt caution; a gentle preſſure with one hand upon the hypogaſtric region, to ſteady the uterus, will much facilitate the extraction. If an hæmorrhage ſhould ſupervene the exit of the placenta, it will be found of ſervice to adminiſter a glyſter, compoſed of four ounces of cold water, and eighty drops of tinct. opii; or an aſtringent injection may be thrown into the uterus to moderate the diſcharge; and in caſes when the whole or part of the placenta remains in the womb for ſome days after the delivery of the child, it may be proper to force injections of warm water, or Port wine, into the uterus from time to time, to bring away any putrid *coagula* that is lodged in the uterus or vagina; this may alſo aſſiſt in promoting the expulſive efforts of the uterus, and diſlodge the placenta. The adheſion of the placenta will ſometimes be ſo great as to reſiſt theſe gentle attempts for its expulſion; in which caſe it becomes neceſſary for the accoucheur to determine whether manual extraction, or abandoning its exit wholly to the efforts of Nature, have a preference: In this caſe every practitioner muſt be guided by circumſtances, as the putrefaction of the placenta, when retained in the cavity of the uterus, is certainly a matter of conſiderable moment; yet, whilſt the whole of the placenta remains firmly attached to the uterus, that proceſs can only take place ſlowly: But, on the contrary, when that redundant maſs becomes putrefied, it naturally follows that a ſeparation, or as it were an exfoliation takes place, and that vital organ, the uterus, diſcharges the dead maſs. From hence will be perceived, how difficult it is to lay down any determinate rules to be invariably followed in every caſe, yet a prudent practitioner will ſeldom be at a loſs how to act; it is however a deſirable event, and what I ſhould wiſh to inculcate, that the expulſion of the placenta ſhould generally be urged to follow the delivery of the child in a longer or ſhorter time, according to the emergency of the caſe. The detention of the placenta ſometimes ariſes from an atony of the uterus, or an irregularity of contraction of the muſcular fibres, aſſuming various ſhapes; in ſome caſes, the mouth of the uterus has been found contracted upon the funis ſoon after the birth of the child; in others

† Albinus mentions a caſe of this kind.

others it aſſumes the form of an hour-glaſs, and is contracted in the middle, and the placenta is lodged as it were in a cyſt beyond this ſecond entrance; theſe and other ſpaſmodic contractions have been obſerved by different authors, and ſeem more liable to affect ſome conſtitutions in a greater degree than others. Smellie enumerates ſeveral inſtances which ſufficiently illuſtrate this fact. Perfect gives an account of a lady, who ſuffered from a retention of the placenta in ſix ſucceeding labours, in ſome of which it was retained till the third, and in one as long as the fourth day, ſee Vol. i. p. 91; ſee alſo Vol. ii. of the ſame author, where are ſeveral caſes related of a ſimilar nature, p. 377, 379, 381, 383, 387, 390, 393. As it is a ſatisfaction to adduce the opinion of ſo eminent a teacher of Midwifery as the late Dr. Colin Mackenzie on this ſubject, I will tranſcribe his anſwer to the 137th caſe, p. 383 of Perfect's Midwifery, Vol. ii.

"Dear Sir,

"As a flooding preceded the delivery, dangerous conſequences might have been expected from forcibly extracting the placenta; it was a precipitate meaſure by which the hæmorrhage moſt probably was much increaſed: In ſuch caſes, I have often allowed an hour, ſometimes an hour and a half; and without the ſymptoms are urgent, this will always be found the ſafeſt way. It is an idle prejudice, which obtains in reſpect to the retention of the placenta; in moſt caſes it is much ſafer, that it ſhould entirely be left to Nature, than to riſque the dangers which attend its forcible extraction; and yet it is often very diſagreeable to ſubmit its excluſion to Nature; but it muſt be remembered, that in great force there is more than proportionable danger of doing injury to the uterus; the medium between theſe two extremes, if any, will perhaps be found the beſt guide to our practice."

"I am, &c."

Exton mentions a caſe of contracted uterus: "As ſoon," ſays he, "as I had ſeparated the child I immediately paſſed my hand, which is my conſtant practice, and found the mouth of the womb ſo ſtrongly contracted that I could by no means introduce even a finger into it. I endeavoured to open the os uteri by paſſing a finger; but the contraction was ſo very ſtrong, that I believe the mouth of the womb would ſooner have been broke than yielded to my fingers. By the feel, it was like a purſe ſtrongly drawn up. After waiting twenty-four hours, (he adds) I perceived that the os uteri was quite relaxed, and fetched the placenta whole, without any difficulty." See p. 111. The ſame author, ſpeaking of the ſpaſmodic

contraction of the os uteri taking place instantaneously after the birth of the child, says, "This, I think, is the only case that forbids an immediate extraction of the placenta, because of the great danger there is of hurting the woman, by being obliged to make use of too much violence." See p. 134. At pages 137, 138, and 139, are three more cases of contracted uterus related.

Mr. White, in his Treatise on the Management of Pregnant and Lying-in Women, relates seven cases where the placenta was retained by a spasmodic affection of the uterus. See fifth edition, p. 443, Case 21, where mention is made of the placenta not being expelled till the seventh day after delivery, and the patient recovered. More cases of the same species are mentioned by the same author; see p. 305, 307, 308, 309, 310.

Dr. Johnson relates a case where the uterus was violently contracted, about mid-way between the orifice and fundus; yet, after much difficulty, he gained admission by introducing the hand, and extracted the placenta with safety to the mother. See p. 2?6.

La Motte has seven cases of this sort. Vide his Observations, p. 358, 359, 362, 363.

Giffard relates two cases of contracted uterus. See p. 263, case 107; and p. 303, case 127.

Burton mentions a case of spasmodic affection of the uterus, of the sand-glass form. See p. 132.

Chapman relates two successful cases of contracted uterus, in one of which the placenta was extracted after five days retension. See p. 158.

Dr. Denman makes mention of a case where the placenta was retained till the fifteenth day after the birth of the child; but is silent as to the event.

In a manuscript copy of a course of Lectures which I possess, from Dr. Young, of Edinburgh, there is related an instance of retained placenta from the same cause: "The woman had been two hours brought to bed, and all the different methods had been used in order to extract the placenta. The cord was broke; I put the woman upon her side, and introduced my hand, but could not get hold of the placenta; I got my hand up to it but no further, the uterus having formed a sort of pouch for it; so that at last I was obliged to trust the matter to Nature; and, what was very uncommon, no fœtid discharge followed, nor any thing like the placenta, and yet the woman recovered, and did very well."*

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* A similar case is mentioned, and where no dangerous symptoms followed. See Nisbet's Clinical Guide, Part iii. p. 145.

I myself

I myſelf once witneſſed the ſpaſmodic diſpoſition of the neck of the uterus in a great degree; immediately after the head of the fœtus was emerged at the valva, the os uteri encircled round the neck of the fœtus like a collar, inſomuch that the fœtus was ſtrangled, and it was impoſſible to extract the body, or even to introduce one finger between the os uteri and neck of the child. I adminiſtered a large doſe of tinct. opii, which counteracted the ſpaſm, and the labour was terminated, with ſafety to the mother, in about the ſpace of two hours from the firſt appearance of the ſpaſm. Were it neceſſary I could adduce more caſes of ſpaſmodic affection of the uterus; but it will be perceived, by referring to the abovementioned authors, that their mode of practice was widely different, moſt of whom ſtrenuouſly recommend the introduction of the hand, though the os uteri ſhould be nearly cloſed upon the funis, rather than truſting its expulſion to Nature, or waiting for a removal of the ſpaſm, or even attempting to counteract its effects by antiſpaſmodic medicines. An accurate knowledge of the uterine action will, in general, direct the accoucheur to the beſt reſources; for, in caſes of this nature, manual extraction can only be juſtifiable in preſſing emergencies; and as every individual caſe attended with ſpaſm may not require the ſame treatment in every inſtance, it may then be expedient to vary our mode of conduct as occaſion requires; and when the os uteri is ſo far contracted as to render the introduction of the hand impracticable, and no hæmorrhage or untoward ſymptoms occur, I would recommend, in the firſt place, to attempt the removal of the ſpaſm by giving the patient a pill with two or three grains of opium; or, what I have more than once found of greater efficacy, a clyſter compoſed of ninety drops of tinct. opii to four ounces of cold water and a drachm of aſſafœtida, after which the hand may in general be cautiouſly and gently inſinuated into the uterus, and the placenta extracted, taking care not to exert too much force upon the os uteri, leſt inflammation, or laceration of the neck of that viſcus, ſhould enſue.† I am, nevertheleſs, certain, from the muſcular fibres of the uterus being ſo circuitouſly arranged, that it is thereby poſſeſſed of a greater degree of elaſticity than moſt other organs of the human body, and is perhaps alſo leſs ſenſible to injury; this every accoucheur, who has had even a tolerable ſhare of practice, muſt have witneſſed; yet who would

† Fielding Ould is of opinion that the orifice of the womb is not capable of ſo ſpeedy a contraction as is generally imagined, and endeavours to controvert the opinion of Deventer on the ſubject.

attempt the immediate extraction of the placenta, where the uterus is affected with spasm, and no hæmorrhage or other dangerous symptoms prevail, before the above means have been employed for its removal. Should the spasm be accompanied with hæmorrhage (which is seldom the case) we may conclude that a portion at least of the placenta is detached from the uterus, therefore our conduct must be guided by the quantity of the discharge and strength of the patient; in which case we shall generally find the introduction of the hand into the uterus more easily admissible than if no hæmorrhage has accompanied the spasm. If, after the extraction of the placenta is completed, the uterus should remain in an atonic state, some degree of hæmorrhage will unavoidably supervene, owing to the mouth of the uterine vessels remaining in a patulous state; and being replenished with blood from another source, the muscular fibres not performing their regular functions, the mouth of the womb becomes in some cases plugged up with coagulated blood, whilst the uterus becomes distended with the effused blood to a considerable degree; a knowledge of its existence may be ascertained, either by an examination of the abdominal parieties, or, what is more certain, by the introduction of the hand into the cavity of the uterus; and, to prevent fever and inflammation, the presence of the hand in that viscus will be ready to scoop out the coagulated contents, and an astringent injection may be thrown into the cavity of the uterus; after which the swaithing of the abdomen may act as a preventive to a return of the effusion of blood into the uterine cavity, and also supply that loss of pressure which the state of gestation had occasioned. Some authors recommend the plugging of the vagina in this state of torpor of the uterus; how far this may be of service I cannot pretend to determine, as I have never put it in practice.

In cases of ossification or induration of the placenta, the presence of which can only be identified by the introduction of the hand into the uterus, and as there will be a degree of resistance of the contractile state of the uterine fibres at the attached part of the indurated placenta, consequently any force exerted upon this part for its separation may occasion hæmorrhage or laceration of that viscus; hence will appear the advantage of removing only the detached portion of the placenta, and leaving all the morbid parts behind, to be discharged per vias naturales, or absorbed into the system by the lymphatics of the uterus. In every case, however, where the extraction of the placenta becomes necessary, and no morbid affection or other circumstances occur to preclude its removal, I would urge a total extraction of the whole mass, when it can be accomplished with safety to the mother, rather than leaving

ing any fragments behind, which eventually produce flooding, inflammation, or fever.*

On the other hand, when the os uteri is closely contracted upon the placenta and funis, and several days have elapsed from the birth of the child, and no hæmorrhage ensues, I would caution the accoucheur against making any forcible attempts to introduce the hand before other means have been tried to abate the spasm, as the mouth of that organ will, in all probability, bear less irritation at this period than it otherwise would immediately after the birth of the child. I am,

GENTLEMEN,

Your humble servant,

JAMES BARLOW.

Blackburn, Lancashire,
Aug. 29, 1800.

To Dr. BRADLEY.

SIR,

IN one of the Numbers of your Journal, Dr. Stoll's practice of suspending the progress of phthisis, by giving antimonials in nauseating doses, is mentioned; and it appears to be inferred from the success attending this practice, that the different preparations of this semi-metal act in a manner analogous to digitalis. As the attention of the faculty to this powerful medicine has been much increased by your valuable Publication, I have had several opportunities of observing its effects; and I believe myself authorised to conclude, that the *modus operandi* of the digitalis purpurea, is very different from that of the other medicines employed in the cure of pulmonary affections.

Asthma is a disease in which I was particularly induced to administer it, on account of the precarious effects of the medicines usually given. In every case in which it was exhibited, the most violent symptoms were mitigated, and the general

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* Pugh says, "Three times in my practice I have been sent for to women where the children had been delivered three days before, and one four days; and notwithstanding I extracted the placenta, and without using much force, that is, not so much as to either injure the womb or over fatigue my patient, two out of three died, and the other with very great difficulty escaped; and the only reason I can assign was from the putrefaction of the placenta, which was very great, and caused inflammation of the uterus, and brought on putrid fevers, which carried them off, the one on the fourth, and the other on the fifth day after the extraction." See p. 30. Vide also Heath's Baudelocque, Vol. ii. sect. 7.

neral state of health visibly improved. One effect, however, particularly attracted my attention, which shewed how different its action was from that of antimonials, and which took place in every patient, viz. *The expectoration was diminished, and at the same time the necessity of it seemed to be removed.* This effect was so remarkable, that some of these asthmatic patients, who had at different times received temporary benefit from garlic, ipecacuanha, and other medicines which increased expectoration, were surprised at finding relief from a medicine, the effects of which were so opposite. It appeared less efficacious in relieving the symptoms of asthma, in those cases in which it produced nausea or vertigo; another striking difference between its action and that of antimonials.

The increase of pulmonary absorption by this medicine, to which Dr. Darwin ascribes its salutary effects, is certainly a more satisfactory explanation of its *modus operandi* than any other that has been attempted. But were we to adopt his opinion, that the increased action of the pulmonary absorbents was the effect of the decreased action of the stomach, we should infer, that this medicine would be more efficacious in proportion to the degree of nausea, or even of vomiting, produced by it; the contrary of which is, however, the fact.

Not having met with a circumstantial narrative of any case of asthma, in which digitalis was given, as we are not able to procure the medical publications of your country until a considerable time has elapsed, I shall beg leave to subjoin a short account of a case, in which its salutary effects were speedily and decisively produced.

Daniel Sheehan, æt. 56, a gardener, had contracted an asthma about twelve years ago, in consequence of exposure to alternations of heat and cold while working in a cellar in this city. The sense of suffocation on ascending an eminence, and the oppression and squeezing of the chest he felt during the greater part of the night, gradually but slowly increased until Christmas last; at which time having caught fresh cold, these symptoms were very much aggravated. He called on me in the beginning of May last, very pale and emaciated; he complained very much of the sense of suffocation, and tightness about the chest; he scarcely slept; but after dozing about an hour on going to bed, he awoke very much oppressed, was obliged to sit up in bed during the remainder of the night, and very often believed that he could not live until morning. His pulse was about 120, and very feeble.

I ordered him fifteen drops of Darwin's tincture of digitalis twice a day. As he lives in a remote part of the city, I did not see him for a fortnight; when he called upon me, I was struck

ſtruck by the remarkable change in his appearance; he had no longer the wheezing nor oppreſſion about his cheſt; his countenance was much fuller, and his complexion much leſs pale; his pulſe was about 90, and tolerably ſtrong. He told me, that after he had taken the bottle about three days, he no longer felt himſelf obliged to ſit up at night, but was able to take a comfortable nap, after which he felt himſelf refreſhed, a ſenſation with which he had been for ſome months unacquainted. At the expiration of a week, he could ſleep five or ſix hours, and his appetite and ſtrength improved in the ſame proportion; he no longer experiences the neceſſity of ſtopping to take breath on aſcending an eminence. He ſtill continues the medicine; and in his own opinion, and that of his family, his general health is better than it had been at any period during theſe ten years. I remain,

Your's, &c.

Cork, June 18, 1800. C. SUGRUE, M.D.

To the Editors of the Medical and Phyſical Journal.

GENTLEMEN,

ENCOURAGED by your reception of my firſt Eſſay in Surgery, permit me to addreſs you with a few thoughts thrown together on ſome caſes in that branch of ſcience, which have lately fallen under my care, chiefly relative to inflammation and abſceſs of the bladder. All the cavities of the body, as well as its other parts, are known to be liable to theſe affections, and have already been ably treated of by practical authors; ſtill, I think, from the following caſe which I am about to delineate, we muſt proceed a ſtep further, and aſcertain the time and circumſtances which will warrant us to interfere in it by Surgery, after the effects of medicine have been tried in vain.

Allen Green, aged 40, came on the Diſpenſary here in March laſt, labouring under a temporary ſtoppage of urine, which, when voided, depoſited purulent matter in conſiderable quantity; tongue, pulſe, and other ſymptoms indicating a febrile ſtate of the ſyſtem. He attributed his complaints to an imprudent uſe of injections for a gonorrhœa, which he had contracted ſome months before. The pain in the region of the bladder was conſtant, but aggravated on preſſure, or on the return of the inclination to make water, which was now become very

very frequent, and could not be effected without severe straining, and even, at times, not without the assistance of the bougie or catheter. Upon the introduction of these, the stricture appeared to be entirely at the neck of the bladder, behind the prostrate gland; but upon examination of that organ, no swelling or disease could be perceived. It was evident, in this stage of the disease, that the time was past to prevent or cure the complaint by bleedings or other antiphlogistic remedies, which, to be successful, must be used early, and in due proportion.—All that could be done, therefore, was to procure a regular evacuation of the purulent matter along with the urine, and try the use of internal remedies. The usual remedies were prescribed, gentle diuretics, uva ursi, opiates, laxatives, tepid bath, mild diet, &c. with the use of the bougie. These he could not endure to persevere in; they rather seemed to do harm.

In employing these remedies, time passed away, and his general health was evidently far on the decline, while the local complaint continued unabated; from which circumstances it was become apparent, the patient would fall the slow but certain victim of hectic disease; an event that had occurred to two or three other patients labouring under similar symptoms, that had fallen within my observation in the course of practice; and I began to think, how far I was warranted to proceed by incision to cut across the stricture. My idea was to perform the incision as if for the lateral operation, to preserve the wound open, and wash out the bladder with warm milk and water.—The patient was apprised of his fate, and consented to submit to whatever might be deemed compatible with life. Before proceeding to such an operation, I deemed it reasonable to have the assistance of a consultation; when, after perusing the most approved surgery, examining the patient, and weighing his present situation, his legs being œdematous, and his strength much impaired, it was judged improper to operate. The event was foreseen, and the patient died.

Upon dissection, the body exhibited the usual emaciated state. The great intestine was slightly inflamed all over the arch of the colon; two or three intus-susceptions were met with. The bladder, upon being cut through, was found in a thickened state, and full of fœtid and clotted pus. There was no stricture in the urethra till the very entering of the bladder; and it seemed to have arisen there, in a great measure, from the excessive thickening of its coats. It was then that I regretted that I had not seized the opportunity earlier, and have considered the stricture as a sufficient *warrant*, by a full and free incision either by the knife or gorget, to have laid open the bladder,

bladder, and thus have given Nature, with the aſſiſtance of art, a chance to have overcome the diſeaſe; and to lay it down in future, that whenever a ſtricture occurs, irremovable by bougies, accompanied with a purulent diſcharge, to proceed as we would do in other caſes of abſceſs,—to operate freely, and give full vent to the matter.

I was much confirmed in the above reaſoning, from obſerving the phænomena which occurred in a caſe of deep-ſeated femoral hernia, in a female patient, that fell to my ſhare in practice at the ſame time I was treating the above. When called to the patient with hernia, a poor woman reſiding in the country, the tumor had been down nine days; and from her own efforts to reduce it, was become exceedingly painful and indiſtinct. It was evident from the aggregate of the ſymptoms, as well as the length of time they had been preſent, that the ſtate of the tumor and fate of the patient were very critical. An extenſive inciſion was made acroſs the tumor through the outward ſkin; the ſac was cautiouſly ſcratched: but it was not till after cutting through a conſiderable depth of fat and glandular ſubſtance that a fluctuation was felt; at length an enormous quantity of fœtid pus burſt out. The bag was laid extenſively open, its different laminæ being quite indiſtinct; and after wiping the wound, the inteſtine was found deep in the bottom, in a gangrenous ſtate. The patient was put to reſt through the night, not without anxiety for her fate. In the morning ſhe was found conſiderably relieved, and the fever much abated. The ſtricture had been fairly divided, and the pus evacuated. Nature proceeded to do the reſt, to throw off the ſloughs both in the inteſtine and membranes, and to heal the wound, which is now nearly cloſed; which leads me to keep in view the practice, in regard to the firſt caſe mentioned in this Eſſay, and to extend the propoſition in Surgery, that whether the *ſtricture* ariſes from external wounds or diſeaſe, whether the cauſe of irritation is foreign or generated matter, it is our buſineſs, when neceſſity demands it, to cut through the one, in order that we may relieve the ſyſtem from the other. I remain,

Gentlemen,

Your moſt obedient,

Paisley,
Aug. 30, 1800.

THOMAS RICHMOND.

On the Physiology of the Brain and Nerves.

To the EDITORS of the MEDICAL and PHYSICAL JOURNAL.

Gentlemen,

IF you will do me the favour to admit into your valuable Journal the following Remarks on the Phyſiology of the Nerves, which have been drawn up with a diffidence commenſurate with the acknowledged difficulty attending this intereſting ſubject; and if it ſhould be the means of furniſhing any hint which, matured by ſome abler hand, may lead to a more clear and ſatisfactory inveſtigation of that wonderful part of the animal œconomy, I ſhall feel myſelf highly gratified.

Many Phyſiologiſts have endeavoured to diſcover, whether ſenſation and motion are produced by vibration along the courſe of the nerve, or by a fluid; their reſearches have generally proved unſatisfactory, for want of even a probable elucidation of the fact.

Although this is a part of the phyſiology of the animal œconomy, which may not admit of abſolute proof; ſtill, I think, there may be a few facts advanced, which might, in the courſe of time, be the means of rendering this intricate ſubject more clear. Thoſe facts which we do know, namely, that the nerves are the principal agents by which ſenſation and motion are produced, and that the cauſe which generally ſets them in action reſts in the brain, are ſo clear and demonſtrative, that there cannot be two opinions on the matter; as alſo that, if a nerve be divided, the part to which it is diſtributed is immediately deprived of the faculty of feeling and motion. It is the means by which this is brought about that ſtill lies in a labyrinth of myſtery, and probably ever will. But let the difficulty be ever ſo great, it ſhould not deter any one who has ſomething new to offer, from contributing his mite; as by the union and inveſtigation of ſeveral data, the truth may at laſt be diſcovered.—Upon this principle I take the liberty of ſubmitting the following obſervations.

Many eminent Phyſiologiſts have declared, that the opinion of the animal ſpirits being a fluid, and that this fluid is conveyed from the brain by the nerves to the different parts of the body for the purpoſe of giving ſenſation and action, muſt undoubtedly be ill founded, as a fluid has never yet been diſcovered in the nerves. So far it may be true, that the nerves do not convey any thing which is perceptible, or that poſſeſſes altogether

together the properties of a fluid; ſtill they may convey, as conductors, that ſubtle matter which has got the name of the electrical fluid.

Why may not this penetrating fluid, which pervades all bodies, be the primum mobile, or grand cauſe, which produces the wonderful phænomena in the nervous ſyſtem? Why may not the nerves be the ſole diſtributors of this matter, however produced, and muſcular action, if not ſenſation, depend entirely upon its influence?

That muſcular motion may be cauſed by the action of the electrical fluid, the experiments of Galvani and Valli, the properties of the torpedo and other electric fiſh, ſufficiently demonſtrate. It is worthy of remark, and much to our preſent purpoſe, that in thoſe fiſh which have the peculiar power at will of electrifying any ſubſtance within their reach, that their bodies are little elſe but a bundle of nerves, by far a greater proportion than any other animal whatever; and the nerves are likewiſe arranged in a line with the part which gives the ſtroke: a ſtrong evidence this in ſupport of the opinion now advanced; or why ſhould Nature make uſe of the ſubſtance called nerve, in preference to any other, as the beſt medium for collecting and diſcharging the electrical fluid?

The velocity with which impreſſions are communicated to and from the brain, cannot well be produced by any other known means, but by ſome *peculiar modification* of the ſame principle upon which the effects of electricity depend.

Another corroborating teſtimony of this opinion may be deduced from the effects that a certain ſtate of the atmoſphere produces on all, and particularly ſome, conſtitutions. From experiments which have been made, it appears that the circumambient air at thoſe times is unfavourable for electric inveſtigation, and evidently diminiſhes the effect, and perhaps the quantum, of this very ſubtle and active matter. Its preſence, then, is here proved to be highly neceſſary for the continuance of life, as the leaſt diminution in quantity cauſes ſuch conſiderable derangement in the animal functions.

If it could be once proved that a *principal* property of the brain was for the purpoſe of collecting, by the medium of the circulating fluids, the electric matter, and diſtributing the ſame by the nerves to all parts of the body, it might probably throw ſome light on the uſe of the ganglions. Theſe ſwellings differ from nerve in being more vaſcular, and likewiſe more pulpy, reſembling in their ſtructure the ſubſtance of the brain. It may not, therefore, be a very unreaſonable idea, to conſider them as ſo many little brains, aſſiſting the great maſs, by re-

taining and diſtributing this uſeful fluid as the body may require it.

I have often remarked that the ganglions are diſtributed in greater numbers, and alſo are in ſize much larger, in the courſe of the great ſympathetic nerves, termed by Anatomiſts the par vagum and intercoſtal. As theſe are the moſt remarkable nerves in the body, whoſe branches are diſtributed very remote from the great brain, there might reaſonably be wanted ſome other ſubordinate apparatus than merely nerve, not only to generate, but alſo to retain a ſufficient quantity of this circulating fluid.

Dr. Monro's caſe of the child born without a head, certainly ſtrengthens, and that in a very great degree, the before-mentioned opinion. It proves, that muſcular action can even exiſt independent of a brain; and that the cauſe which produces nervous energy, muſt neceſſarily be derived from ſome other ſource.

The uſe of the nerves, under this idea, appears to be, *principally*, as ſo many quick conductors, conveying ſenſation and motion to every part of the body. The brain and ganglions may alſo be compared; the firſt, to a large reſervoir for the electric fluid; and the latter, to ſo many knobs, anſwering ſimilar intentions in the grand machine of Nature as thoſe do which are uſed for experimental purpoſes in electricity.

I am fully aware that there may be ſome and even many objections advanced, in oppoſition to this opinion; but I flatter myſelf that they will not prove ſo concluſive and ſatisfactory as thoſe which have been already oppoſed to the doctrine of vibrations.

Thus have I ventured to give my thoughts upon a ſubject of great importance; and however they may be received in other reſpects, I hope my claim for good intention will not be diſallowed.

I am, your's, reſpectfully,

Alcester, Aug. 14, 1800. T. PURTON.

To the EDITORS of the MEDICAL and PHYSICAL JOURNAL.

Gentlemen,

I Am induced, from the attention which you have already paid to my Communications, to offer a few Remarks on the Operation for the Hare-lip. I have often thought that this operation has been deferred too long after birth; and that if it was performed

formed earlier, the child would not only suffer less, but there would be less difficulty in the operation. The result has fully answered my expectations: I find many advantages in the early performance of the operation; the principal are, the passive state of the little patient, and the thinness of the lips. The common suture I think preferable to the pins, which, with a proper bandage to keep up the cheeks, is all that is necessary. I operate as early as the third week; and on the fourth day from the operation, the ligatures may generally be removed: but respecting this, there must necessarily be variety in different cases.

These remarks may be considered by some as trifling; but if they tend in the least to diminish the sufferings of the child, and at the same time give less impediment to the operator, I think you will deem them worthy of notice.

I am, Gentlemen,

Your very humble servant,

Alcester, Sept. 12, 1800. T. PURTON.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE testimony of many respectable practitioners, and my own experience, having convinced me that the Cow-pock disease is less violent and less dangerous than the Small-pock in its mildest form; also that it is a sure preventive of the Small-pock, if resorted to previous to Small-pock infection; and if my opinion is correct respecting the period when Small-pock becomes infectious by the atmosphere, I shall be able to prove that it will *prevent*, although the person may have received that infection two or three days. It is my present opinion that Small-pock becomes infectious many hours before the eruption is manifest on the skin. However this may really be, is not easily determined; and I know much diversity of opinion exists on the subject. But the principal object of this letter is to offer for your insertion some facts respecting the Cow-pock, which occurred in one family under my own observation, believing that some of the attending circumstances were rather peculiar; and although the general opinion of the most discerning of the profession, as well as of the public, now preponderates in favour of the new disease, yet as objections and prejudices are still opposed to its progress, I trust I shall not be ac-

cused

cufed of fupererogation if I endeavour to throw my mite into the fcale.

Mafter Tefchemaker, 10 years of age, recently arrived from the Weft Indies, was attacked with fever on the 2d of July laft; on the 4th, a variolous eruption appeared on the fkin, with every appearance of a violent difeafe taking place. There were at this time four other perfons in the houfe, relatives and attendants, who had not had the difeafe. I advifed that they fhould immediately be inoculated with Cow-pock matter. They had not heard of the new difeafe, and of courfe did not at once adopt what I recommended; however, on the 6th, two of them, Mr. and Mrs. Krebs, adopted what I advifed; and on the 7th, one other, a Negro woman. The fourth faid he had Small-pock in the Weft Indies. On the 9th, Mr. K's arm manifeft-ed the impreffion of the difeafe; on the 12th, I found the pulfe accelerated about 10, and his tongue a little affected. Thefe fymptoms continued about three days; the arm foon after fcaled, and he became perfectly well. Mrs. K's arm did not fhow the fame marks of difeafe until the 11th. On the 15th, it became very much inflamed, and fever occurred in about the fame degree as in Mr. K. but fhe had much more head-ach, which I attributed in fome degree to extreme anxiety and watchfulnefs, fhe having from Mafter Tefchemaker's firft attack attended him day and night unremittingly, and he was now in great dan-ger. On the 16th, a puftule appeared on her leg, but the pe-culiar form and character I cannot defcribe, it having been bro-ken very early by fome external violence; I imagine by rub-bing or ftriking the other leg againft it.

This puftule on the leg feems to confirm Dr. Woodville's opinion, that fuch may be produced by perfons infpiring a va-riolated atmofphere while under the other difeafe. The inocu-lated part as well as the puftule continued inflamed for about ten days, and this lady became well.

I was in doubt for feveral days, whether the one inoculated laft (namely, a day after this lady and gentleman) had received the infection; but on the 17th, ten days after the inoculation, (fhe continuing to breathe an atmofphere highly variolated) fome inflammation took place on the arm, and at the fame time a confiderable degree of fever; but there were many reafons to induce me to think this fever was the effect of cold, and night-ly attendance on the miferable fufferer with Small-pock. From this fhe gradually amended for fome days; but on the 26th, nine days after the firft attack of fever, and nineteen after the Vaccine Inoculation, and after three days of renewed attack of fever, accompanied with violent head-ach and back-ach, a va-riolous and very numerous eruption appeared: The fever now abated,

abated, and the inoculated arm ſtill retained the appearance of local infection. It was now determined to ſend her to the Small-pock Hoſpital, where ſhe recovered.

Maſter T——, the firſt ſubject mentioned with Small-pock died on the 27th. On the 31ſt, Maſter Swain, about 10 years of age, another of the four, (who ſaid he had had the diſeaſe) began to ſicken, and had a very violent and dangerous diſeaſe, but from which he is now recovered. Another young gentleman who had his paſſage in the ſame veſſel, and who, moſt probably, caught his diſeaſe from the ſame ſource as my firſt, alſo died of Small-pock, within a few days of him; but this laſt was not under my own obſervation, having taken lodgings at a different part of the town.

Now, Sirs, I muſt take the liberty here to endeavour to impreſs on the Readers of your valuable Journal, (by a ſort of recapitulation) the great utility of the new diſeaſe, for which the national gratitude ought, in ſome way or other, to be preſented to Dr. Jenner. Here were ſix perſons, all of them juſt arrived from the Weſt Indies, two of whom died of Small-pock, two others recovered only by a very ſevere ſtruggle and laſting deformity of the ſkin; while the two who were inoculated (in time) with the Vaccine matter, eſcaped by the means of a very ſlight diſeaſe, although they were for three days previous to their inoculation, and for ſome weeks after, in the houſe and in the chamber with thoſe who had Small-pock violently.

That the Negro woman was inoculated with Cow-pock matter, and yet had Small-pock, is not to be imputed to any want of power in that to prevent, but from its having been deferred too long; and at the time of inoculation I expreſſed my doubt of its ſucceſs.

If you think this detail worthy a place in your next Number, I ſhall hope it will furniſh ſome additional proof of the utility of the new Inoculation; and alſo, that ſome of your Readers, of more experience and more diſcernment than myſelf, may make ſome deductions from theſe facts, to the further elucidation of this moſt important diſcovery. I am,

Gentlemen,

Your's, moſt reſpectfully,

L. LEESE.

Throgmorton Street, Sept. 12, 1800.

To

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IF the information of an individual practitioner, far removed from the metropolis, can add any thing to the very high medical authority with which you have favoured the public on the subject of the Vaccine Inoculation, my testimony is very much at your service; it may, in some measure, serve to ascertain the progress of that very useful discovery all over this island.

In the month of July last, during our warmest weather, the confluent Small-pox appeared in the neighbourhood of some of the first families in this part of the country, who became very much alarmed for the safety of their children. I was consulted, and on due enquiry found most of the children under very unfavourable circumstances to receive the variolous infection; I mentioned my objections to the parents, and at the same time proposed the Vaccine Inoculation, under the complete impression it would be equally successful in resisting contagion. My proposal was readily agreed to; Vaccine matter was immediately procured; the children were inoculated, and took the infection in the most distinct and favourable manner; the fears of the parents were completely removed; and from this success, and the example of the first families, I am happy to inform you, that the Vaccine Inoculation is becoming general in this district of country. I am,

GENTLEMEN,
Your obedient humble servant,
A. WILLSON, M.D.

Montrose, North Britain,
Sept. 10, 1800.

A Concise History of the Principal Discoveries in Anatomy.

[Concluded from No. XIV. pp. 356—362.]

§. 41. The *glossopharyngeus*, or our *ninth* pair, was generally considered in the sixteenth century, as a branch of what was at that time called *the sixth pair*, or our *eighth*, or *nervus vocalis*. FALLOPIUS was the first who distinguished this nerve from the proper *nerve* of the voice, by evidently showing its distribution to the tongue and fauces.* EUSTACHIUS assigned to his

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* Observat. p. 406.

his sixth pair three principal branches, viz. the *glossopharyngeus*, the *vocalis*, and the *accessorius Willisii*,* of which the *glossopharyngeus* was first figured by him.† Although VESALIUS knew the *nervus vocalis*, and its combination with the *lingualis medius*, or his seventh pair, and likewise *the recurrent branch*, he did not accurately enough pursue its course, fancying that it provided the bladder and uterus with nerves.‡ FALLOPIUS, however, evidently demonstrated that beyond the liver and mesentery no intestine received any branch from the *nervus vocalis*.§ EUSTACHIUS likewise rightly figures the distribution of this nerve, and its final transition into the *intercostal nerve*;‖ but COLUMBUS¶ and GUIDI,** still maintained the erroneous opinion of VESALIUS. The *nervus accessorius Willisii* was better known to the anatomists of the sixteenth century than the *glossopharyngeus*, though it was taken for a branch of the *nervus vocalis*. VESALIUS describes it as a branch of the sixth pair, distributing itself to the muscles of the fore and back neck;†† and likewise FALLOPIUS‡‡ and GUIDI.§§ EUSTACHIUS, however, has represented in his tables, the origin of this nerve from the third cervical nerve, its combination with the *eighth pair*, or *nervus vocalis*, and its progress to the *cleidomastoideus* and *cucullaris*, together with its communication with the third and fourth cervical nerve;‖‖ and KOYTER had even traced the roots of the accessory nerve to the fifth cervical nerve.¶¶

Our *twelfth pair*, (*the nerve of the tongue, lingualis medius, hypoglossus*,) was the seventh pair of the ancient anatomists. VESALIUS describes indeed its origin from the corpora pyramidalia, its combination with the *nervus vocalis*, and distribution in the tongue; but in this description he is very imperfect, committing at the same time the error of distributing this nerve to the *stylohyoideus*,*** which is not the case, as it only passes between the *hypoglossus*, to which it sometimes imparts a small branch, and the *stylohyoideus*.††† ETIENNE is acquainted with its communication with the first and second cervical nerve,‡‡‡ and FALLOPIUS with its anastomoses in the

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* Oss. Exam. p. 205.

† Tab. xviii. fig. 2, (*mm*)

‡ Lib. vii. c. 9, p. 369.

§ Obs. p. 407

‖ Tab. xviii. fig. 2, (Mν)

¶ L. viii. p. 364.

** Lib. iii. p. 82.

†† Lib. vii. c. 9, p. 369.

‡‡ Obs. p. 407.

§§ Lib. iii. p. 82.

‖‖ *Eustache*, Tab. xviii. f. 1, 2, (ζηδι); fig. 2, (*efghik*); Tab. xix, fig. 2, (*fg.*); Tab. xx. fig. 2, (*abc*).

¶¶ *Koyter* Observat. p. 108.

*** *Vesal.* Lib. vii. c. 10, p. 372.

††† *Boehmer* de nono pare nervor. cerebr. § 43.

‡‡‡ *Stephan.* p. 249.

tongue, with the guſtatory nerve of the third branch of the fifth pair.* DU LAURENS refutes the opinion of thoſe who adopt a combination between this and the *acouſtic nerve*, for explaining the co-exiſtency of deafneſs and dumbneſs.† EUSTACHIUS has given the firſt good repreſentation of its origin and progreſs.‡

§ 42. As for the *ſpinal nerves*, *thirty pair* of them were generally counted, viz. ſeven or eight *cervical nerves*, twelve nerves of the back, five of the loins, and ſix of the os ſacrum, or the falſe vertebræ. The old authors differ very much in the number of the cervical nerves, as ſome do not know the firſt cervical nerve, and, conſequently, have but ſeven pair; and others, who know it, think the ſeventh pair the laſt, calling our eighth, which comes out between the ſeventh vertebræ of the neck and the firſt of the back, the firſt back nerve of the bone. BERENGAR, however, differs from them by allowing eight cervical nerves, like the preſent anatomiſts.§ ZERBI had already found the true origin of the firſt cervical nerve,‖ and VESALIUS deſcribes afterwards, with much accuracy, the bony canal or furrow in the *atlas*, through which it paſſes, diſtributing itſelf into the muſcles of the neck;¶ but he ſuppoſed that there were only *seven* cervical nerves, likewiſe taking the nerve, which iſſues between the ſeventh vertebra of the neck and the firſt of the back, for the firſt pair of the nerves of the back.** ETIENNE is entirely ignorant of our firſt cervical nerve, conſidering our ſecond pair as the firſt.†† INGRASSIAS deſcribes, much better than VESALIUS, the origin and progreſs of the cervical nerves, particularly their ganglia and diſtribution into the fore and back branches. He thinks that the ſeventh pair combines itſelf ſometimes with the fourth, fifth, and ſixth cervical nerve.‡‡ COLUMBUS too delineates with correctneſs the origin and progreſs of the firſt cervical nerve, and reproves VESALIUS for having adopted twelve pair of the back, there being only eleven. It is probable that COLUMBUS conſiders the laſt nerve of the back as the firſt of the loins.§§ EUSTACHIUS has a particular claim to be praiſed, for having firſt explained, by figures, the origin of the cervical nerves, and their communication with the *intercoſtal nerve*.‖‖

KOYTER

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* *Fallop.* Obſ. p. 407.

† *Laurent.* Hiſt. Anat. lib. xi. c. 11. p. 965.

‡ Tab. xviii. fig. 2. (10, 11, 12.)

§ Comment. in Mundin. f. 488. a.

‖ Anatom. p. 127.

¶ Lib. iv. c. 12. p. 379.

** Ibid. c. 13. p. 381.

†† *Stephan.* p. 73.

‡‡ Comment. in *Galen* de Oſſibus, p. 169, 171.

§§ Lib. viii. c. 4. p. 371. c. vi. p. 380.

‖‖ Tab. xviii. fig. 1, 3, 4, 5, (λ). Tab. xvii. fig. 2. (m).

KOYTER and others that deſcribe theſe nerves, have moſtly only quoted EUSTACHIUS.*

I have above mentioned, that the *intercoſtal nerve* was conſidered by many phyſicians of this century, as a continuation of the *nervus vagus*, or *vocalis*. ACHILLINI particularly,† VESALIUS‡ and FALLOPIUS§ conſidered the *intercoſtal nerve* as a branch of what was then the ſixth pair, and the Tables of EUSTACHIUS evidently ſhow his having been of the ſame opinion.‖ ZERBI, however,¶ and after him BERENGAR** and MASSA,†† maintained, that this nerve was a continuation of the preſent fifth pair, becauſe they knew its combination with the *nervus vidianus*. ETIENNE was almoſt the only anatomiſt who took the *intercoſtal nerve* for a peculiar and ſeparate trunk.‡‡

§ 43. So far they were advanced at the beginning of the ſeventeenth century in the knowledge of the human body. It muſt be allowed, that a great deal is owing to the induſtry of the anatomiſts of thoſe times, and, particularly, to the immortal FALLOPIUS. However, the greateſt diſcovery that could take place in anatomy, the circulation of the blood, was not yet made. Of this, its cauſes and conſequences, we intend to lay before our readers at another time.

Observations on a Case of Small-pox having supervened after the Vaccine Inoculation; by DR. HUGGAN.

To the EDITORS of the MEDICAL and PHYSICAL JOURNAL.

Gentlemen,

WE find, in the 17th Number of the London Medical Review and Magazine, p. 105, a Caſe inſerted "of Small-pox having ſupervened after the Vaccine Inoculation," which the Author tells us, has "been the ſubject of much converſation," and "ſome miſrepreſentation;" and leſt any perſon ſhould doubt this ſtatement, in the ſubſequent number, to wit, the

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* *Coiter*, Obſ. p. 108.
† Annotat. in Mundin. p. 30.
‡ L. iv. c. 9. p. 371.
§ Obſerv. p. 407.
‖ Tab. xviii. fig. 2. (ξξ).
¶ Anat. p. 40.
** Comment. in Mund. f. 456. b.
†† Introduct. f. 89. a.
‡‡ *Stephan.* p. 69, 76.

laſt,

laſt, p. 208, we find a ſecond letter on the ſame caſe, wherein the Author aſſures us, "that there can no longer remain a doubt upon that ſubject; for," ſays he, "I have inoculated with the matter, and produced Small-pox in the moſt ſatisfactory way."

That this Caſe ſhould have occaſioned "much converſation" amongſt thoſe who were *weak* enough to believe ſuch an occurrence *probable*, or even *poſſible*, can eaſily be ſuppoſed; and that it has alſo been the ſubject of "ſome" (nay much) "miſrepreſentation," few will doubt, who have conſidered the caſe as related by the Author himſelf, and which we ſhall now examine more particularly. With regard to the diſeaſe that immediately followed the Vaccine Inoculation, "On the third day," we are told, that "there were ſufficient marks of the action of the virus;" and that "on the eighth day, the child complained of head-ach and *ſickneſs*, had a quick pulſe, *white tongue*, and increaſed heat, with an *enlargement* and tenderneſs of the axillæ."

If I may be allowed to give an opinion from my own experience, from that of my friends which I have ſeen, and from all that I have read upon the ſubject of the Cow-pox, I will venture to affirm, that the Vaccine Inoculation, in ſo young a child, has never produced a train of ſymptoms either ſo violent, or that have followed each other in a ſimilar ſucceſſion, to what we are told took place in this Caſe. No other practitioner, I believe, has ever been able to ſay that there were, on the *third* day, *ſufficient marks* of the action of the virus. Allowing, however, this to be ſometimes the caſe, we ſhould have expected, in a ſubject ſo irritable as this child appears to have been, eſpecially from the regular manner, in point of time, with which the ſymptoms of the Cow-pox from inoculation are obſerved to follow each other, the conſtitutional diſeaſe to have come on, at fartheſt, three days afterwards, that is, on the ſixth day from the *ſuppoſed* inoculation with *vaccine* matter; for, I believe, it has been uniformly remarked, that if, on the fifth day after this inoculation, we can, from unequivocal and "ſufficient marks of the action of the virus," pronounce infection to have taken place, the conſtitutional diſeaſe commences upon the eighth. Nor do I ever recollect to have ſeen or heard of the Cow-pox, in infants, being accompanied with *ſickneſs*, *white tongue*, nor even much increaſed heat; nor have I ever perceived any *enlargement* in the axilla, though always a tenderneſs, eſpecially when touched.

To be more circumſtantial is unneceſſary, as the Caſe ſpeaks for itſelf; every medical man, much converſant in diſeaſe, muſt have occaſionally obſerved a ſimilar train of ſymptoms to have followed a cut puncture from a foul lancet or other pointed inſtrument,

ſtrument, independent of the matter that made it ſo; and there is not a doubt but that this child's *first* diſeaſe was imputable to ſuch a cauſe.

With the above Caſe, the Editors of the Magazine in which it appeared, have very properly contraſted a copy of the Teſtimonial, in favour of the Vaccine Inoculation, that has been ſigned by ſo many reſpectable Practitioners in London, and to which, any further individual teſtimony in its favour is *now* quite unneceſſary; and with regard to the purport of the Author's ſecond letter, they have obſerved, that it "does not leſſen the importance of the Vaccine Inoculation,—ſince it ſtill remains a certain preventive of the Small-pox."

It has alſo been elſewhere very juſtly obſerved, (Medical and Chirurgical Review, laſt Number, p. 190) that the "Hiſtory" of this Caſe "is defective, in not deſcribing more minutely the appearances of the inoculated part in its different ſtages." This is certainly a very important point, as on the appearances of it, when other ſymptoms are not perceptible, we are obliged to form our indication, whether or not the whole ſyſtem has been affected.

It is, certainly, now too late of the day for Practitioners to be amuſing themſelves with publiſhing Caſes altogether inconcluſive of what they ſeem deſirous to be inferred from them, or in hopes of being able to controvert the *efficacy* of the Cow-pox, in preſerving the human conſtitution from the infection of the Small-pox. Such caſes, indeed, may impoſe upon the credulous, may perplex the minds of thoſe who ſtill have their doubts on the ſubject, and may afford a malicious and ſhort-lived triumph to the ungenerous part of the Profeſſion, and thoſe who think themſelves intereſted in oppoſing the Vaccine Inoculation; but they never can influence the liberal and enlightened mind, that grounds its concluſions upon the ſteady and uniform reſult of extenſive and deciſive experience.

Magna eſt veritas, et prevalebit.

——————— 'Tis evidence ſo full—
If the laſt trumpet ſounded in my ear,
Undaunted I ſhould meet the Saints half way,
And, in the face of Heav'n, maintain the fact.

DRYDEN.

Now, leſt your ſilence on the Caſe alluded to ſhould be conſtrued in a light different from that in which you have conſidered it, I have taken the liberty of troubling you with theſe few Remarks; which, if you think the formal refutation of ſuch a Caſe at all neceſſary, I will thank you to inſert in the enſuing Number of your Journal. I have to regret that I had it

it not in my power to have sent them sooner, as from unforeseen delay I did not receive your last Number till yesterday.

I am, Gentlemen,

Your most obedient servant,

A. HUGGAN.

Tenterden, Kent,
Sept. 17, 1800.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

SEVERAL instances of Fractures of the Skull doing well without the use of the trephine, having been published by Mr. O'Halloran, Mr. Abernethy, and other men of character in their profession, I trust every additional fact on the subject may prove useful to the young and inexperienced practitioner; therefore, I take the liberty of communicating the following Case that lately came under my care, which, if you think worthy of a place in your valuable Journal, is much at your service. I am,

GENTLEMEN,

Your obedient humble servant,

J. EVANS.

Ketley, Shropshire,
Sept. 15, 1800.

On the 21st of December last, Thomas Haywood, a boy, 9 years of age, being at work in a coal mine in this neighbourhood, a large quantity of coal fell upon his shoulders when he was in a stooping posture, by which he was driven with considerable force upon his head, against an iron rail that formed one side of a way for the conveyance of small carriages from the remote parts of the pit to the bottom of the shaft. In consequence of this accident, an extensive portion of the scalp was detached from the occipital bone; and about an inch above the orbit of the right eye, there was a large wound of the integuments, accompanied with a fracture of the frontal bone, *three* inches in *length*, with a depression of the lower portion of it, *three-eights* of an inch below its original level.* The superior edge of the fracture was very rough, a loose fragment of which I removed with my thumb and finger. The boy vomited,

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* The depth of the depression was measured on the tenth day after the accident, at the time the plasters were removed, when it appeared much less than at first.

mited, and talked a little incoherently while I was dreſſing him, but ſoon recovered, ſo as to give rational anſwers to ſuch queſtions as were put to him. As he had no alarming ſymptom of compreſſed brain, I did not think myſelf juſtifiable in making uſe of the trephine; therefore, brought the retracted edges of the wound together with ſutures, and applied ſlips of adheſive plaſter over the whole, with an intention of retaining the parts more firmly in contact. The detached portion of ſcalp on the poſterior part of the head (after being freed from a conſiderable quantity of coal ſlack, which had been forced under it) was replaced, and ſecured in its ſituation with ſticking plaſter, and a bandage lightly applied. After his wounds were dreſſed, he was well enough to be conveyed home, a diſtance of half a mile from my houſe, where he had been brought immediately after the accident. A doſe of Dover's powder was given him that night, which had a good effect; but the next morning he complained of much pain in the injured parts. The ſcalp being tumefied, I directed the bandage to be conſtantly moiſtened with a ſolution of crude ſal ammoniac in vinegar; by this mode of treatment the pain and ſwelling ſoon abated.

The plaſters were not removed from the forehead for the ſpace of ten days, at which time they became looſe in conſequence of a ſmall diſcharge of matter; the wound appeared then in a healthy granulating ſtate; that on the occiput healed principally by the firſt intention. It is worthy of remark, that the boy was not confined to his bed a ſingle day, nor did one unfavourable ſymptom occur. Opiates and cathartics were occaſionally adminiſtered; and in the ſpace of five weeks he was perfectly well without any exfoliation, notwithſtanding a conſiderable part of the os frontis was denuded both above and below the fracture.

Chemical Experiments and Observations, on the Extraction of Sugar and Syrup from Indigenous Plants. By SIGISM. HENRY HERMBSTAEDT.

[Concluded from our laſt, pp. 246—252.]

II. *Experiments with Carrots, (Daucus Carotta, L.)*

BY cutting carrots into pieces, and boiling them with water, a ſweet liquor is got, of which, by evaporation, country people prepare a juice, which they call carrot-ſyrup, and

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eat either with bread, or uſe it inſtead of ſugar, and by which common ſyrup is ſometimes adulterated. But as the juice obtained in this way is ſtill too mucilaginous to be uſed as a ſyrup, I operated in the following manner: A buſhel of carrots being freed from their rind, were ground upon a grater, and the juice expreſſed. It was then boiled, clarified with the white of eggs, and afterwards thickened to the conſiſtency of a ſyrup; and of this, ſix pounds and a half were obtained, which though of a pretty agreeable taſte, was by far inferior to that of both beets. It was impoſſible to draw any ſaccharine cryſtals from it, and the alkohol did but extract a ſubſtance very much like manna.

12. *Experiments with Common White Turnips, (Braſica Rapa.)*

Twelve turnips were ground upon a grater, being freed from the outer rind, and gave by expreſſion a ſweetiſh juice. This being clarified, and ſtrained through a woollen cloth, was thickened to a ſyrup of an agreeable taſte, and though inferior to that of the beets, it is equal to common ſyrup. By another experiment, I found that from one hundred and ſixteen pounds of turnips, eight pounds of ſyrup may be obtained, in which, after ſome months, cryſtals of brown ſugar had formed; but they ſeparate with difficulty from the remaining parts.

13. *Experiments with the Cole Rape, (Braſſica Napobraſſica.)*

The ſucculency of this turnip, and the ſweetneſs of its juice, induced me to undertake the ſame experiments with it; ſixty roots were therefore ground and expreſſed, and gave twenty-two quarts of ſweetiſh juice, which, however, taſted a little acrid. By ſeething it, a great deal of its impurities ſeparated, and the fluid became quite clear. Being filtered, it was mixed with twenty quarts of lime-water and gently boiled, by which the acrid taſte went off, and a ſyrup was got, that had, in every reſpect, a great likeneſs with that of the black birch, and may be uſed inſtead of common ſyrup. To obtain ſugar from it, a portion was evaporated in a glaſs veſſel; and after ſome weeks, ſmall cryſtals of it were formed, whoſe quantity I could not determine.

14. *Experiments with the Skirret, (Sium Siſarum, L.)*

Mr. Marggraff obtained from a pound of freſh ſkirret roots, four ounces and a half of dried; and half a pound of dried roots gave three drachms of a pure ſugar. My experiments were only made for the purpoſe of obtaining a ſyrup from it, as the extraction of ſugar is ſubject to many difficulties, on account

count of their containing too great a quantity of farinaceous matter. A bushel of these roots, which weighed about twenty-six pounds, was pounded in a mortar, and afterwards repeatedly expressed, with the addition of some cold water, by which means a turbid sweet juice was obtained. By exposing it in a cool place a quantity of farinaceous matter separated, and the liquor became clear. Being clarified with the white of eggs, and thickened, five pounds of a very agreeable syrup of a light brown colour were got; but it would prove too expensive for common use.

15. *Experiments with Parsnips, (Pastinaca Sativa, L.)*

The sweetness of these roots induced me to undertake a similar operation with them, though Marggraff had remarked, that but little sugar is to be obtained from them. A bushel of them, weighing twenty-four pounds, was accordingly treated in the same way as the former, and five pounds and a half of an agreeable syrup were extracted, which however had not quite lost the specific taste of parsnips.

These are the only experiments my time has hitherto allowed me to undertake; I have not yet been able to determine the relative proportion of sugar that may be obtained from each of those vegetables, but I shall endeavour to make some experiments by which this may be ascertained.

CRITICAL RETROSPECT OF MEDICAL AND PHYSICAL LITERATURE.

[FOREIGN AND DOMESTIC.]

A Treatise on the Chemical History and Medical Powers of some of the most celebrated Mineral Waters; with Practical Remarks on the Aqueous Regimen; to which are added, Observations on the Use of Cold and Warm Bathing. By WILLIAM SAUNDERS, M.D. F.R.S. 8vo. pp. 483, price 8s. in boards. London, 1800, W. Phillips.

IN his Preface, Dr. S. gives the following account of his plan:— "Impressed with the opinion that chemical analysis, in its present improved state, is fully adequate to make us acquainted with all those foreign contents that give their medical powers to mineral springs, I have been more minute on this subject than perhaps might be thought necessary by the greater number of readers; but as it appears to me probable, that under particular circumstances of dilution and temperature, the actual quantity of foreign matter contained in any water, produces effects by no means proportionate to those that might occur under different circumstances, I have thought it safest on the whole, to admit a considerable degree of accuracy on the subject of chemical analysis, where the authorities were such as to allow of it, in order that on this head at least, there should be as little error as possible; and I have not scrupled occasionally to introduce remarks which will only be intelligible to the chemical reader. The terms of the modern chemical nomenclature have likewise been mostly adhered to, as well as its principles, as they are such as are now the most familiar to those who are conversant in this science. With regard to the individual mineral springs which are particularly treated of, they are very few compared to the vast number which, by acquiring a certain degree of local reputation, have gained a place in the catalogue of medicated waters; and I have only noticed those that enjoy a high degree of celebrity, that are interesting from some peculiarity of composition, or that serve to distinguish certain classes of these natural bodies, and illustrate their medical virtues. The reader will see, that the particulars concerning the chemical analysis of these springs are extracted from the various detached publications on the individual waters; and some pains have been taken to reconcile or account for differences of result, which sometimes happen where more than one authority has been consulted. These publications likewise generally contain remarks on the medical properties of the mineral water, and directions for its use, many of

of which, being written by excellent practitioners as well as ingenious chemists, who have long resided on the spot, afford much matter that is highly valuable to the physician who prescribes these remedies, and to the patient who uses them. This part of the subject has been selected with care, and is presented to the reader accompanied with such observations as appeared to me to be requisite.

"Any general account of the medicinal use of mineral springs would be imperfect, without taking some notice of the employment of them as a bath, either generally or topically; and as the single circumstance of temperature forms the basis of the most important distinctions on this subject, I have in the latter end of this work, taken into consideration the use of the warm and cold bath, in various diseases.

"The physician is frequently called upon to decide for his patient which of the various medicated waters he shall use; whether sea-bathing or a natural chalybeate, be the most eligible tonic; whether a gouty dyspeptic habit will be better put in order by the thermal waters of Bath or Buxton, the tonic purgative water of Cheltenham, or by the sulphureous springs of Harrogate. Without entering minutely into the circumstances of different cases, I have endeavoured to lay down such general indications, and to notice such distinctions, as will assist the practitioner, or even the invalid, who is in some degree acquainted with these subjects, to make his choice upon solid and judicious grounds; and on this head I have often been able to add to theoretical reasoning, the result of my own experience for many years.

"Such is the plan of the book which is here submitted to the candour of the public; and it appears to me, that the present time is that, in which a work of this kind may prove of considerable service, by collecting under one point of view, the leading features of those important improvements which chemistry has been making for many years upon these subjects, particularly with regard to their application to medicine."

The book is divided into seven chapters. In the first Dr. S. examines the chemical constitution of simple water, and shews that it is a component part of blood, and of all the animal and vegetable fluids and solids.

The second chapter is on the foreign contents of mineral waters, and the chemical tests by which they are distinguished. These impregnations are common air, carbonic acid, hydrogen, sulphurated hydrogen, and azotic gases; calcareous, magnesian, and aluminous salts; soda and ammonia; alkaline neutral salts; iron and copper; bitumen; siliceous and aluminous earth; and alluvial matters.

The author then examines the waters in common use, and recommends the following methods of correcting certain defects in them:

"Both chemical and mechanical means have been used with this intention; but it is very seldom that the former can be employed in

in an adequate degree, without altering the taste; and thereby rendering the water unfit for drinking, though it may be useful for other purposes. All the earthy salts which would oppose the solution of soap, may be decomposed by a mild alkali, which will cause the earth to precipitate, and the addition of so much alkali, and the conversion of an earthy into a neutral alkaline salt, will not injure the solvent powers of the water.* Simple boiling will likewise soften those waters whose hardness consists in mere carbonated earths, especially the calcareous. As this expels the carbonic acid, the earth subsides. This however will not remove selenite; and as most hard waters contain both these calcareous salts, boiling is only partially useful. Another and more extensively applicable method is that of filtration. The principle of this process is, to cause water that is foul to pass through the very minute pores of any substance not of itself capable of imparting any thing to the water; and by this means every thing which is simply suspended in the liquor, but so intimately diffused as not to be separable by mere repose, is detained in the filter, and the water passes through clear and limpid. This is a process which is performed largely within the earth, and hence we find the purest waters to arise through clear sand or siliceous rock. To imitate this natural process, nothing is better than the porous free-stone of which filtering stones are usually made. Sand, clear gravel, pounded glass, and similar substances, are equally fitted for this purpose. Filtration may be performed either by causing the water to descend by its own weight through a porous substance, or to ascend through it by capillary attraction. The latter method, where it can be adopted, appears preferable. It is to be observed, however, that common filtration will not render water less saline, or separate any thing that is truly dissolved, but only what is suspended. I have said *common* filtration, for it has been supposed by some that sea water, when passing up through a considerable stratum of sand, may be deprived of its salt, as well as the impurities which visibly foul it. It is certain that in many places remarkably good fresh water is found by digging a few feet in the sand on the sea shore, at a very short distance from the high-water mark. This is the case at Yarmouth, on the Norfolk coast, and the water procured from these wells is purer than any other that is found about the town; but there is no direct evidence that this is sea-water filtered by ascent through the sand, since it may be well supposed to be fresh water rising from a greater distance within land, that has undergone the last degree of purification, by its passage through the fine clear sand of which the soil is composed, for a considerable distance off the sea shore.

"Again, there are numberless instances where springs of fresh water of great purity, unquestionably arising from the country higher up,

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* The ashes of fern or wormwood, which contain a good deal of carbonat of potash, are often used in various parts of the country for softening hard water for the purpose of washing.

up, are ſeen cloſe to the ſea ſhore. Thus at Scarborough the haven is always left dry at low water, and at that time a number of freſh water ſprings are detected pouring their contents on the beach which is left bare by the tide. However the poſſibility of ſweetening ſalt water by mere filtration be determined, there is no method that we are yet acquainted with of performing this with ſufficient eaſe and expedition, to be employed for ordinary purpoſes. A turbid brine, by paſſing through a tub of clean ſand, will run through perfectly clear, but quite as ſalt as before. It appears, however, that an earth ſuſpended by carbonic acid, as for example, the carbonat of lime, will in a conſiderable degree be ſeparated in the filter, owing to the very divided ſurface of the water, by which much of this acid will be diſſipated; and thus a hard water will ſometimes be rendered ſofter as well as clearer by filtration."

The ſucceeding chapter, which is by far the longeſt in the book, gives a particular account of the waters of

Malvern	Bath	Tunbridge	Vichy	Aix
Holywell	Sedlitz	Spa	Carlſbad	Borſet
Briſtol	Epſom	Pyrmont	Hartfell	Barege.
Matlock	Sea	Cheltenham	Harrogate	
Buxton	Seltzer	Scarborough	Moffat	

Together with a Synoptical Table of the compoſition of thoſe waters.

The two next chapters treat of the *internal* uſe of water, both as an article of diet and medicine.

The ſixth chapter contains deſcriptions of, and directions for, the *external* uſe of water, or the different kinds of bathing.

From the concluding chapter we preſent our readers with the following extracts:

" In peruſing the moſt popular treatiſes on particular mineral waters, eſpecially on thoſe of high and juſtly acquired reputation, written by practitioners long reſident on the ſpot, we ſhall find in many of them a great fund of accurate chemical knowledge, and excellent medical obſervations; but we ſhall alſo, in the greater number of theſe works, meet with certain modes of treating the ſubject, which may fairly be brought under candid criticiſm. Some of theſe writers (eſpecially thoſe who have ſhewn themſelves ſkilful and zealous chemiſts) have, I think, ſometimes refined too much on the ſcience, and have endeavoured to transfer the ſame accuracy of diſcrimination which experimental chemiſtry affords, to the explanation of minute effects produced on the living body by various ſubjects during their ſtay in its complicated organs. Others again, have endeavoured to throw a veil of myſtery over the whole ſubject, and, profeſſing to diſregard all the information which chemiſtry affords, they have ſtudiouſly avoided any attempt to explain the effects produced by certain mineral waters from a review of their contents, and have ſtrongly favoured the idea of their being *ſpecifics*, prepared by the hand of nature, againſt ſome of the moſt formidable and obſtinate diſeaſes with which the human race is afflicted.

" It

"It is urged by ſome of the merely practical writers on particular mineral waters, that the mode in which their active contents operate, is equally myſterious with that of ſome of our moſt powerful medicines, ſuch as mercury and opium, and probably likely always to remain ſo; and therefore that accurate chemical examination is little elſe than philoſophical trifling. But it ſhould be remembered, that every medicated water is a compound, at leaſt, of the water itſelf, and of that which gives it its ſenſible properties, and theſe it is the peculiar object of chemiſtry to ſeparate, and to eſtimate their reſpective proportions. Now, no practitioner will deny that it is of conſequence to know the proportional quantity of each ingredient in a compound form of medicine, that he may at leaſt endeavour to aſcribe to each its particular operation, although he does not pretend to explain how that operation is to be brought about.

"The compoſition of the moſt celebrated mineral waters having been known by accurate analyſis, ſeveral ingenious men have endeavoured to confirm their experiments by ſyntheſis; and to produce, by artificial means, a compound, in all reſpects ſimilar to the natural preparation. To this too was added the additional motive of being able to ſupply the want of the natural waters, in places, and at times, when theſe could not be procured. The illuſtrious Bergman, in his excellent Treatiſe on Mineral Waters, has given very good ideas on the method of preparing them artificially; but ſome of the proceſſes which he propoſes, are imperfect, and liable to objections. Where the water to be imitated is only a ſolution of ſome neutral ſalts, ſuch, for inſtance, as the Epſom, Sedlitz, or Sea water, all that it is neceſſary to know, is the proportion in which they are contained in the natural ſpring; but the proceſſes of nature are not always imitated with ſo much eaſe. A greater difficulty lay in the way, which was, that of impregnating water with gaſeous ſubſtances to as complete a ſaturation as is found in ſome of the moſt powerful mineral ſprings. This every chemiſt knows to be a very difficult object to attain, and impracticable with any of the more common apparatus now in uſe for ſuch purpoſes; but, under particular management, it has been attained, and ſome of the ſpecimens of artificially carbonated water that are to be ſeen, appear fully to equal in this reſpect the natural waters of Pyrmont or Seltzer. The ſaline and chalybeate principles may alſo be eaſily added, and the imitation will be complete for all medical purpoſes."

A Practical Treatise on the different Fevers of the Weſt Indies, and their Diagnoſtic Symptoms. By WILLIAM FOWLE, M.D. 8vo, pp. 93. London, 1800. Symonds.

Dr. F. in common with many of his brethren, had been ſtruck with the diſcordance of medical authors on the ſubject of the fevers of the Weſt Indies; therefore, when he was appointed Phyſician to the forces on that ſtation, he determined to uſe his beſt endeavours to elucidate a ſubject of ſo much national importance.

"Very

"Very early after my arrival in the country, I obferved, that perfons attacked with fever, in almoft any fituation, very generally became yellow. This foon led me to conceive it merely a concomitant fymptom, and by no means fuch as could be fufficiently characteriftic of any one fever, to give it a particular denomination; it alfo led me to difcover the caufe of the variety of fymptoms attributed by different authors to the Yellow Fever, and to account for fuccefsful methods of cure which were often diametrically oppofite to each other. The longer I remained in the country, the more I was convinced of the danger attendant on giving a name to one difeafe from a fymptom common to fo many. An order coming out, that all the medical officers at that time on the Leeward Ifland ftaff fhould deliver in their opinions on the difeafes of the troops in the Weft Indies, together with the moft fuccefsful method of cure, &c. through the Infpector General of the Leeward Ifland Hofpitals, to the Army Medical Board; I conceived I could not better anfwer the purpofe propofed, than by fubmitting to them the obfervations I had made on the different difeafes, laying a confiderable ftrefs on thofe fymptoms that feem to point out more particularly the different fevers one from another; the mode of treatment being fo effentially different, and the fevers of that climate being fo quick in their progrefs, as to make a few hours' delay, for the purpofe of afcertaining their tendency to remiffion, productive of the moft imminent danger. In doing this, I found more matter than I expected prefs on me; and though I began with an intention of comprifing all I had to fay in a few fheets, I found at the conclufion that I had written a little volume. On my return to England, having frequent occafion to converfe with fome medical friends on the fubject of thofe difeafes which I had been moft in the habit of obferving, and finding it difficult to explain my ideas as perfectly as I wifhed in converfation, I put a copy of the work into their hands. The obfervations there contained were conceived by them to lead to fome important points of practice. I was advifed and defired to make fuch additions as might render them more inftrumental to the fervice of thofe who are likely to be engaged in the fame line, and to offer them to the perufal of the public.

"I have now complied with thofe defires; and at the end of this work, I have alfo added a few prefcriptions for the ufe of young men who may be fent to that country, immediately on entering the army. I am well convinced, that fuch formulæ, having nothing very particular in them, might, for the generality of readers, have been well omitted: but, from experience, I feel myfelf authorifed to fay, that many young men, who may undergo very ftrict examinations on the fubjects of anatomy, furgery, and the fymptoms and general cure of difeafes, have ftill much to learn as to the compofitions of medicines and their proper dofes; and I here beg leave earneftly to requeft a more proper degree of attention to that fubject."

Dr.

Dr. F. divides the fevers of the West Indies into intermittents, remittents, ardent fever, and the malignant or jail fever. On the diagnostic symptoms of these varieties of fevers, he says,

" It may assist the reader if we bring together what has been scattered in the former chapters concerning the different situations, seasons of the year, and predispositions, which conduce to the production of the various fevers.

" We may observe that the ardent fever requires a certain degree of firmness of fibre: it reigns most commonly at that period of the year when the sky is clear; when the atmosphere seems little, if at all, loaded with vapour, and when the heat is great. The objects of its attack are the stout and athletic, young or middle aged men, or women who in their constitutions and habits nearly resemble them, and those who have lately arrived either from Europe or North America, or from the more mountainous situations in the West Indies themselves. It is prevalent in the dry sandy bays, and is often induced by persons who have been much heated being suddenly exposed to cold.

" The remitting fever, on the contrary, seems to require a previously debilitated body: it is most frequent at those periods of the year, when, the ground having been supersaturated by the rains, the whole atmosphere becomes loaded with noxious vapour. Persons who have lived for some time in the West Indies are by no means freed from its power, and women and children suffer severely from it, as do also those who have been debilitated by previous illness or long continued fatigue. It delights in the low swampy marshes, in the neighbourhood of lagoons, in uncultivated situations, where the currents of air are impeded, and on the smaller hills which are subject alternately to the swampy vapours, and the cold storms.

" The gaol fever is seldom to be met with except on board of ships or in crouded towns, or in individuals who have been exposed to the contagion of such places.

" This recapitulation may lead us to a very important point of practice; it may teach us to be very minute in our enquiries into the former manner of living of our patient, and also into his previous residence and other circumstances: for it must appear to be the height of imprudence to bleed a man profusely, and to have recourse to other violent evacuations to a very great extent, though he should be young in appearance, robust, and attacked in a dry hot situation, when we might find, by a more minute enquiry, that this man has, for weeks previous to his illness, been undergoing immense fatigue, in situations too the most exposed to swampy vapours, and perhaps with but spare diet and little sleep. Nor is this supposing a case merely for the sake of illustration; the thing itself is continually occurring. Small detachments from regiments are frequently sent not only from one part of an island to another, but also to different islands; soldiers thus detached are very apt to be seized with fevers, not only from change of air, which I have before asserted to be a very frequent exciting cause, but

but alſo from having greater opportunities of obtaining ſpirits. The danger of following this evacuating plan in a man who has been expoſed to the influence of contagion muſt be ſtill more evident.

" On the contrary, where the patient happens to be attacked ſoon after he comes into the neighbourhood of ſwampy ſoils, not having before been expoſed to any debilitating cauſes, we ſurely may be more free in our evacuations, than in a more weakened perſon, or one who had been a longer reſident.

" We may obſerve that the mode of attack differs conſiderably in the three fevers. While the gaol fever is commonly preceded, for ſome hours, often for a day or two, by languors and tranſient alternations of chills and fluſhes, and the remitting has a *rigor*, generally ſtrong but always ſufficiently evident, the ardent fever commonly makes its attack of a ſudden, and with little or no *rigor*, and the patient, from being in apparent ſound health, is hurried inſtantly into the midſt of diſeaſe. The proſtration of ſtrength alſo, though very great both in the remitting and typhus, yet bears no proportion to that in the ardent: the pain in the head, back, and limbs is conſiderable in all, but in the ardent there is moſt commonly a violent pain in the middle of the thighs. The pain alſo of the head is different in the various fevers: in the ardent, it is principally fixed over the orbit of each eye; while there is only a dull heavy pain over the reſt of the head: in the remitting, the pain is violent and continued over the whole head; while in the gaol fever it ſeems rather to be a ſucceſſion of pulſations, giving an idea to the patient that his head is forcibly opening and ſhutting. There is little vomiting, except juſt in the early attack of gaol fever, but in both the others, it is a troubleſome and dangerous ſymptom: in the remitting, there is generally a quantity of bile thrown up, frequently of a green colour, but this ſeldom or never happens in the ardent. So conſtantly indeed is this the caſe, that where bile is vomitted up, and there has been ſenſible *rigor*, I ſhould have ſcarcely any doubt in pronouncing the fever not to be of the ardent type: and there is alſo in the latter a ſenſation of burning at the pit of the ſtomach.

" The countenance in the gaol fever is commonly, although ſlightly ſuffuſed, yet of a dirtyiſh hue, and by no means tumid, and there is commonly violent pulſation of the carotid arteries. In the remitting, after the hot fit is formed, the ſuffuſion is great, but the tumour by no means ſo evident, particularly about the fauces and neck, as in the ardent. The mode of ſpeaking alſo is very different: in this, it is confuſed and thick; in the remitting, it varies only from health in a quickneſs, owing to the anxiety of the patient, not to any particular debility of the organs of ſpeech; and in the gaol fever it is generally a quickneſs of ſpeech for a word or two, rather as if from impatience at being diſturbed, or elſe it is plaintive and querulous. Neither in the remitting nor typhus has the patient any of that appearance as of intoxication, which is frequently to be obſerved in the ardent fever.

" The tongue in typhus is generally very tremulous when put out: it is from the beginning furred, and ſoon becomes dry and chapped; and, towards the latter ſtages of the diſeaſe, the tongue and lips are covered with black and looſe ſaburra, floating like cobwebs, or they have a number of apthæ over their ſurface. In the remitting, the tongue is furred, but in no degree, and, as the diſeaſe advances, this fur becomes brown, but there is in general ſome moiſture on it to the laſt. In the ardent fever the tongue has no fur upon it; on the contrary, we may call it morbidly clean: it is rather moiſt, and of a bright red colour: as the diſeaſe advances, it ſometimes becomes dry, at others not ſo, but always continues clean The thirſt is not ſo great as we might be led to expect in this fever, from the vehemence of the ſymptoms, neither is it in any proportion to what is felt in the others. In this fever alſo, while the proſtration of ſtrength is very great, the vomiting, burning heat of the ſtomach, and reſtleſſneſs are violently urgent, and the heat of the ſkin intenſe. The pulſe varies very inconſiderably, either in ſtrength or quickneſs from its natural ſtate, but in the other fevers, it is amongſt the firſt ſymptoms to ſhew a derangement of the ſyſtem.

" The delirium is very different alſo: in the ardent fever, it is of the moſt fierce kind. The patient generally imagines himſelf in the preſence of his moſt bitter enemies, who are either attacking him, or whom he is endeavouring to attack; the eye-balls are ſtrained, the whole countenance puts on the moſt terrific aſpect, and it often requires two or three perſons to hold him in his bed. The delirium in the remitting is ſeldom ſo fierce; it is generally mild, the imagination of the patient buſying itſelf with his former occupations and purſuits; while that of typhus ſeems ſcarcely to amount to more than a want of power of attention in the ſick perſon to any thing about him; for during the time he is uttering the moſt incoherent nonſenſe, if he be rouſed, he gives a rational anſwer, but immediately relapſes into his incoherent fit.

" Theſe are the ſymptoms which are moſt diſſimilar in the different fevers. I have purpoſely omitted the yellowneſs of the ſkin, the black vomit, and the hæmorrhages from different parts of the body, as I have ſeen them occur in every ſpecies of fever in the tropical climates."

A Treatiſe on Opthalmy, and thoſe Diſeaſes which are induced by Inflammations of the Eyes, with new Methods of Cure. Part the Firſt. By Edward Moore Noble, Surgeon, 8vo. pp. 144. London, 1800, Robinſons.

The Author's reaſons for appearing before the public on this ſubject, are thus ſtated by him:—

" The art of curing diſeaſes has, of late years, made rapid ſtrides towards arriving at that *acmé* of perfection, beyond which it is not in the power of man to advance it. The light which has been let in upon us, by the doctrines of that great genius, Dr. John Brown,

Brown, and ſo ably ſeconded by a Darwin, and a Beddoes, has laid the foundation of a new æra in the annals of medicine, and has opened new views to the practitioner, in the theory and treatment of diſeaſes.

"Since that epoch no regular treatiſe, on the inflammation of the eye, has appeared, in which the mode of treatment has been founded on ſyſtematic principles; and when we conſider the importance and delicacy of that organ, we ſhall be ſurpriſed to find, how little has been done, towards arriving at a rational plan of cure.

"The regular routine of bleeding, bliſters and cathartics, with a variety of external applications, are generally indiſcriminately applied, with little attention to the nature, or the period of the diſeaſe; and there are ſome practitioners who act with ſtill greater inconſiſtency, and maintain, that it is uſeleſs to inſpect the eye; that it cauſes an unneceſſary degree of irritation; and that we ought to truſt entirely to internal medicines.

"It is my intention to endeavour to point out the propriety of a certain mode of treatment, and to diſcriminate the proper time for the uſe of different applications.

"On the firſt attack of an Opthalmy, the general circulation of the maſs of fluids is not evidently increaſed, though it may be ſo in a ſhort time, from the pain and irritation of the eye; I therefore conſider the diſeaſe as a topical affection, and that we ought chiefly to rely on local applications for a cure.

"In ſpeaking of the cauſes of Opthalmy, I have divided them into an increaſe of ſtimulus, or an increaſe of that ſomething to which I have given the name of the irritable principle; but whether it ought to be conſidered as a quality of vitality, or as ſupplied by the brain, or from the atmoſphere, I have not ventured to riſk an opinion.

"It probably may be thought, for a Treatiſe on the Opthalmy, I have entered into too long a digreſſion upon the effects of *ſtimuli* applied to the body, and have been too prolix upon the laws relative to the accumulation or exhauſtion of this irritable principle. Much more might undoubtedly have been ſaid, which would have better elucidated the doctrine, but I wiſhed not to take up too much of my reader's time upon the diſcuſſion, and I knew not how, in ſaying leſs, to properly explain my ideas on thoſe ſubjects.

"It may, perhaps, not be improper in this place, to take a general view of what is intended to be given in the Second Part, which will conclude this Treatiſe.

"In the firſt place I ſhall enter upon the cure of the inflammation of the eye.

"In the laws of the animal economy, there is ſcarce any fact more clear than a *ſtimulus* ſtronger than uſual being applied to the moving fibre, makes it leſs eaſily excited into action, and that on the ſudden ſubſtraction of this increaſed *ſtimulus*, the motions of the part will be diminiſhed.

"Upon this law will depend my method of cure of the Opthalmy. The treatment of the diſeaſe admits of a variety of modifications;

difications; but my principal object will be the application of a *stimulus*, in a peculiar manner, as great as the eye can bear, without being thrown into convulsive motions, and when this *stimulus* loses its effect of causing pain, to suddenly remove it, and diminish all *stimuli*, or irritating causes, as much as possible.

"By these means a diminished action of the vessels will be induced, the pain will be moderated, and an alleviation of the symptoms will take place.

"I hope to be able to send the Second Part, which will conclude this Treatise, to the press the beginning of next year."

The above extract will enable our readers to form a judgment of the Author's stile and principles of practice.

Mr. Davy's Chemical and Philosophical Researches.

[Continued from pp. 265—269, of our last.]

The following experiments are a proof of Mr. D's intrepidity, and of the deleterious effects produced by the respiration of hydrocarbonate.

"In the first experiment I breathed for near a minute, three quarts of hydrocarbonate mingled with nearly two quarts of atmospheric air. It produced a slight giddiness and pain in the head, and a momentary loss of voluntary power; my pulse was rendered much quicker and feebler. These effects, however, went off in five minutes, and I had no return of giddiness.

"Emboldened by this trial, in which the feelings were not unlike those I experienced in the first experiments on nitrous oxide, I resolved to breathe pure hydrocarbonate.

"For this purpose, I introduced into a silk bag, four quarts of gas nearly pure, which was carefully produced from the decomposition of water by charcoal an hour before, and which had a very strong and disagreeable smell.

"My friend, Mr. James Tobin, jun. being present, after a forced exhaustion of my lungs, the nose being accurately closed, I made three inspirations and expirations of the hydrocarbonate. The first inspiration produced a sort of numbness and loss of feeling in the chest and about the pectoral muscles. After the second inspiration, I lost all power of perceiving external things, and had no distinct sensation, except a terrible oppression on the chest. During the third expiration, this feeling disappeared, I seemed sinking into annihilation, and had just power enough to drop the mouth-piece from my unclosed lips. A short interval must have passed, during which I respired common air, before the objects about me were distinguishable. On recollecting myself, I faintly articulated, '*I do not think I shall die.*' Putting my finger on the wrist, I found my pulse thread-like, and beating with excessive quickness.

"In less than a minute I was able to walk, and the painful oppression on the chest directed me to the open air.

"After making a few steps, which carried me to the garden, my

my head became giddy, my knees trembled, and I had juſt ſufficient voluntary power to throw myſelf on the graſs. Here the painful feeling of the cheſt increaſed with ſuch violence, as to threaten ſuffocation. At this moment, I aſked for ſome nitrous oxyde. Mr. Dwyer brought me a mixture of oxygene and nitrous oxyde. I breathed this for a minute, and believed myſelf relieved. In five minutes, the painful feelings began gradually to diminiſh; in an hour they had nearly diſappeared, and I felt only exceſſive weakneſs and a ſlight ſwimming of the head. My voice was very feeble and indiſtinct. This was at two o'clock in the afternoon.

"I afterwards walked ſlowly, for about half an hour, with Mr. Tobin, jun. and on my return was ſo much ſtronger and better, as to believe that the effects of the gas had diſappeared; though my pulſe was 120, and very feeble. I continued without pain for near three quarters of an hour, when the giddineſs returned with ſuch violence as to oblige me to lie on the bed; it was accompanied with nauſea, loſs of memory, and deficient ſenſation. In about an hour and a half the giddineſs went off, and was ſucceeded by an excruciating pain in the forehead and between the eyes, with tranſient pains in the cheſt and extremities.

"Towards night theſe affections gradually diminiſhed. Between eight and ten, I took, by the advice of Dr. Beddoes, two or three doſes of diluted nitric acid. At ten, no diſagreeable feeling except weakneſs remained. I ſlept ſound, and awoke in the morning very feeble and very hungry. No recurrence of the ſymptoms took place, and I had nearly recovered my ſtrength by the evening.

"I have been minute in the account of this experiment, becauſe it proves, that hydrocarbonate acts as a ſedative; i. e. that it produces diminution of vital action, and debility, without previouſly exciting. There is every reaſon to believe, that if I had taken four or five inſpirations inſtead of three, they would have deſtroyed life immediately, without producing any painful ſenſation.— Perhaps moſt of the uneaſy feelings after the experiment, were connected with the return of the healthy condition of organs.

"About a week after this experiment, I attempted to reſpire carbonic acid, not being at the time acquainted with the experiments of Roſier.

"I introduced into a ſilk bag four quarts of well waſhed carbonic acid produced from carbonate of ammonia by heat; and after a complete voluntary exhauſtion of my lungs, attempted to inſpire it. It taſted ſtrongly acid in the mouth and fauces, and produced a ſenſe of burning at the top of the uvula. In vain I made powerful voluntary efforts to draw it into the wind-pipe; at the moment that the epiglottis was raiſed a little, a painful ſtimulation was induced, ſo as to cloſe it ſpaſmodically on the glottis; and thus, in repeated trials, I was prevented from taking a ſingle particle of carbonic acid into my lungs.

"I tried

"I tried to breathe a mixture of two quarts of common air and three of carbonic acid, without ſucceſs; it ſtimulated the epiglottis nearly in the ſame manner as pure carbonic acid, and was perfectly non-reſpirable.

"I found that a mixture of three quarts of carbonic acid with ſeven of common air was reſpirable; I breathed it for near a minute. At the time, it produced a ſlight degree of giddineſs, and an inclination to ſleep. Theſe effects, however, very rapidly diſappeared after I had ceaſed to breathe, and no other affections followed.

"During the courſe of experiments on nitrous oxyde, I ſeveral times breathed oxygene procured from mangancſe by heat, from three to five minutes.

"In reſpiring eight or ten quarts; for the firſt two or three minutes I could perceive no effects. Towards the end, even when I breathed very ſlowly, my reſpiration became oppreſſed, and I felt a ſenſation analogous to that produced by the want of freſh air; though but little of the oxygene had been conſumed.

"In one experiment, when I breathed from and into a bag containing twenty quarts of oxygene for near ſix minutes, Doctor Kinglake felt my pulſe, and found it not altered in velocity, but rather harder than before. I perceived no effects but thoſe of oppreſſion on the cheſt.

"Having obſerved in my experiments upon venous blood, that nitrous gas rendered that fluid of a purple tinge, very like the colour generated in it by nitrous oxyde; and finding no painful effects produced by the application of nitrous gas to the bare muſcular fibre, I began to imagine that this gas might be breathed with impunity, provided it were poſſible in any way to free the lungs of common air before inſpiration, ſo as to prevent the formation of nitrous acid.

"On this ſuppoſition, during a fit of enthuſiaſm produced by the reſpiration of nitrous oxyde, I reſolved to endeavour to breathe nitrous gas.

"One hundred and fourteen cubic inches of nitrous gas were introduced into the large mercurial airholder; two ſmall ſilk bags of the capacity of ſeven quarts were filled with nitrous oxyde.

"After a forced exhauſtion of my lungs, my noſe being accurately cloſed, I made three inſpirations and expirations of nitrous oxyde in one of the bags, to free my lungs as much as poſſible from atmoſpheric oxygene; then, after a full expiration of the nitrous oxyde, I transferred my mouth from the mouth-piece of the bag to that of the airholder, and turning the ſtop-cock, attempted to inſpire the nitrous gas.—In paſſing through my mouth and fauces, it taſted aſtringent and highly diſagreeable; it occaſioned a ſenſe of burning in the throat, and produced a ſpaſm of the epiglottis, ſo painful as to oblige me to deſiſt inſtantly from attempts to inſpire it. After moving my lips from the mouth-piece, when I opened them to inſpire common air, aëriform nitrous acid was inſtantly formed in my mouth, which burnt the tongue

tongue and palate, injured the teeth, and produced an inflammation of the mucous membrane, which lasted for some hours.

"As after the respiration of nitrous oxyde in the experiments in the last Research, a small portion of the residual atmospheric air remained in the lungs, mingled with the gas, after forced expiration; it is most probable that a minute portion of nitrous acid was formed in this experiment, when the nitrous gas was taken into the mouth and fauces, which might produce its stimulating properties. If so, perhaps I owe my life to the circumstance; for supposing I had taken an inspiration of nitrous gas, and even that it had produced no positive effects, it is highly improbable, that by breathing nitrous oxyde, I should have freed my lungs from it, so as to have prevented the formation of nitrous acid when I again inspired common air. I never design again to attempt so rash an experiment.

"In the beginning of September I often respired nitrous oxyde mingled with different proportions of common air or oxygene. The effects produced by the diluted gas were much less violent than those produced by pure nitrous oxyde. They were generally pleasant: the thrilling was not often perceived, but a sense of exhiliration was almost constant.

"Between September and the end of October, I made but few experiments on respiration, almost the whole of my time being devoted to chemical experiments on the production and analysis of nitrous oxyde.

"At this period my health being somewhat injured by the constant labour of experimenting, and the perpetual inhalation of the acid vapours of the laboratory, I went into Cornwall; where new associations of ideas and feelings, common exercise, a pure atmosphere, luxurious diet, and moderate indulgence in wine, in a month restored me to health and vigor.

"Nov. 27th. Immediately after my return, being fatigued by a long journey, I respired nine quarts of nitrous oxyde, having been precisely thirty-three days without breathing any. The feelings were different from those I had experienced in former experiments. After the first six or seven inspirations, I gradually began to lose the perception of external things, and a vivid and intense recollection of some former experiment passed through my mind, so that I called out, "*what an amazing concatenation of "ideas!*" I had no pleasurable feeling whatever, I used no muscular motion, nor did I feel any disposition to it; after a minute, when I made the note of the experiment, all the uncommon sensations had vanished; they were succeeded by a slight soreness in one of the arms and in the leg: in three minutes these affections likewise disappeared.

"From this experiment I was inclined to suppose that my newly acquired health had diminished my susceptibility to the effects of the gas. About ten days after, however, I had an opportunity of proving the fallacy of this supposition.

"Immediately after a journey of 126 miles, in which I had no sleep

ſleep the preceding night, being much exhauſted, I reſpired ſeven quarts of gas for near three minutes. It produced the uſual pleaſurable effects, and ſlight muſcular motion. I continued exhilarated for ſome minutes afterwards: but in half an hour found myſelf neither more or leſs exhauſted than before the experiment. I had a great propenſity to ſleep.

" I repeated the experiment four or five times in the following week, with ſimilar effects. My ſuſceptibility was certainly not diminiſhed; I even thought that I was more affected than formerly by equal doſes.

" Though, except in one inſtance, when indeed the gas was impure, I had experienced no deciſive exhauſtion after the excitement from nitrous oxyde, yet ſtill I was far from being ſatisfied that it was unanalogous to ſtimulants in general.—No experiment had been made in which the excitement from nitrous oxyde had been kept up for ſo great a length of time, and carried to ſo great an extent as that in which it is uniformly ſucceeded by exceſſive debility under the agency of other powers.

" It occurred to me, that ſuppoſing nitrous oxyde to be a ſtimulant of the common claſs, it would follow that the debility produced in conſequence of exceſſive ſtimulation by a known agent, ought to be *increaſed* after excitement from nitrous oxyde; in the ſame manner as the debility from intoxication by two bottles of wine is increaſed by a third.

" To aſcertain whether this was the caſe, I made on December 23d, at four P. M. the following experiment: I drank a bottle of wine, in large draughts, in leſs than eight minutes. Whilſt I was drinking, I perceived a ſenſe of fulneſs in the head, and throbbing of the arteries, not unanalogous to that produced in the firſt ſtage of nitrous oxyde excitement. After I had finiſhed the bottle, this fulneſs increaſed, the objects around me became dazzling, the power of diſtinct articulation was loſt, and I was unable to walk ſteadily. At this moment the ſenſations were rather pleaſurable than otherwiſe, the ſenſe of fulneſs in the head ſoon however increaſed ſo as to become painful, and in leſs than an hour I ſunk into a ſtate of inſenſibility. In this ſituation I muſt have remained for two hours or two hours and a half."

[To be continued.]

De la Peſte, ou les Epoques memorables de ce Fleau, i. e. On the Plague, or the memorable Epochs of this Evil, and the Means of preventing it. By J. P. Sapon, &c. Paris, for Lavilette and Co. 2 vol. 8vo. pp. 300.

The meaſures which are taken in the different ports of the Mediterranean, to prevent the infection of the plague, may be ſufficient in time of peace; but in time of war, where the general police can be eaſily diſturbed, and the laws on which the welfare of nations

tions rely, sometimes neglected by circumstances, it would undoubtedly be very imprudent to consider ourselves equally secure. In the general agitation of things in which we now live, this scourge of mankind may steal into Europe in more than one way. The different means to import smuggled wares may, particularly at this time, open a way to this evil, to pass the barriers which are opposed to it; and there are likewise instances of its having escaped from military hospitals under the apparent symptoms of a common epidemic disease, when it afterwards assumed the character of a true plague.

Amidst so many critical and dangerous circumstances, *Cit. Sapon* has endeavoured to serve the community, by collecting every thing that experience and observation have taught the best informed physicians, or the persons that superintended the execution of those laws for preventing the plague. After having, in the introduction, made some reflections on the origin and causes of the plague, he proceeds to give, in the *first* volume, the history of this evil, considered in its most remarkable epochs; he speaks of the plague of *Athens* in the year 335, before the Christian era; of that of *Constantinople* in the year of our Lord 542; of that in 1347, otherwise called the *black plague*; of that of *Milan*, 1629 and 30; of that of *Lyons*, 1628 and 29; of that of *Montpelier*, 1629; of that of *Digue*, 1629; of that of *Marseille*, 1720; and of that of *Toulon* and *Aix* in the same year.

By presenting thus to the reader the ravages of the plague, its accidents, symptoms, and character, by conducting him to the dismal scenes of a desolate city, and of a person afflicted with the plague, and struggling against pains and inevitable death, the author attempts to awaken the attention of Governments and individuals, to caution themselves with every possible care against the most insidious and dangerous enemy of mankind; and he concludes this volume with giving an account of the steps and measures that were taken in those dangerous times.—We do not suppose that candid readers will expostulate with the author for only having given the alarm, by representing this picture of misery and desolation, occasioned by the plague; and had he published his work without adding the administrative and preventive part, he might have deserved this reproach. Such a false delicacy, however, may sometimes do much harm, by hiding from us the danger, and of course preventing us from taking proper measures.—In the *second volume*, he treats of the laws which ought to be established in all sea ports, where there is the greatest danger of the plague being imported. The whole terminates with an historical chronology of the plagues that ravaged Europe before and after the Christian æra.

Archive für die Medicinische Landerkunde, i. e. Archives for the Medical Knowledge of Countries, Vol. I. *No.* 1. Koburg & Leipzic, for J. C. Sinner, 8vo. 1800.

The Author professes this first number of a new periodical publication, devoted to the medical knowledge of countries, to be nothing but a trial of the kind, to see whether the plan conceived by the author

author of collecting medico-topographical notices of single countries and places, which are here and there scattered, will meet with the approbation of the public. He gives in this number fragments of medical topographies extracted from different known Journals, that of *Hufeland*, &c. The places he acquaints us with, are different towns of Germany, as *Clausthal*, on the Harz forest, *Weymar*, &c. to which is added a description of the hospital at *Bamberg*, one of the best in Germany.—The interest of such an undertaking, as well for the physician as the geographer, appears evident; and it is to be wished, that the Editor may be sufficiently supported, to enable him to enlarge his plan, and to conduct and execute it properly.

Erfahrungen über den Runkel ruben Zucker, i. e. Experiments on the sugar of the Beet Root, with some ideas and proposals on its fabrication upon a large scale, and on the culture of the beet root.—By W. A. Lampsadius, Professor of chemistry at Freyberg. 1800. (8vo. pp. 84.) Freyberg, for Cratz, price 12 groshen, or nearly 2s.

This pamphlet is one of the best that has appeared on the subject. The experiments are made with beet roots, cultivated both in the common way and after the method of Achard; but the proportion of sugar that is obtained varies according to the soil wherein they grow. The land required for their culture, to make them productive of sugar, must be loose, easily drying, and well manured, and at the same time be sufficiently exposed to the action of the sun. By a chemical analysis, he found them to contain, of water, from 92 to 94 per cent. sugar 2—$3\frac{2}{3}$ per cent. mucous matter, 2—3, of albuminous and farinaceous matter, but a small quantity, besides some odorate; and in the yellow variety some colouring principle and a bitter tasting *fixed* matter, &c. He then relates his procedures for obtaining sugar. The juice, after the roots have been ground, is expressed in a strong bag of horse-hair, and boiled for 10 to 15 minutes, with the addition of charcoal powder and as much lime, till the blue vegetable colour is no more changed by the juice, while it is continually stirred and the scum taken of. After this, it is filtered warm through flannel, and quickly cooled by pouring it into flat vessels, and afterwards clarified in a proper vessel with milk, that has been before fleeted. It is then, after 24—36 hours, again poured into a flat copper vessel, which is well tinned within, and exposed to evaporate at 50° of *Reaumur*, till one-third of the juice is gone, and it has obtained the consistency of a thin syrup. Let it now stand for 48 hours till it be cooled, and begin the evaporation again at 40° in flat dishes, till a cuticle appears on the surface of it. In this way the crystals appear in the greatest quantity, and the mucous matter separates a great deal better. The crystals are at last expressed, the syrup distilled for making brandy, and the waste parts used for feeding cattle. The juice is made stronger by frost, and requires afterwards not so much fire. After having mentioned something about the establishment

ment of sugar works, he concludes with proposing different mixtures of earths in which the beet roots may best prosper, and with giving an account of the expences and profit of 100 quintals of the beet root, when treated for obtaining sugar, syrup, and brandy from them.

Beytrag zur Beurtheilung, i. e. Contribution to a Criticism of the Brunonian System of Medicine, and the late Researches upon it; by Dr. Cappel, second edition, 1800, pp. 424, 8vo. Gottingen, Dieterich.

The first edition of this well written work, containing 142 pages, appeared in 1797; the present is therefore considerably augmented, and in many respects altered. The author professes in this, a greater tendency to Brunonian principles than in the former, and retracts many objections he thought proper at that time to maintain. In the introduction, he states the rules by which a system of medicine ought to be judged. Medicine, as an empirical science, can never aim at a strict scientific perfection; and a system of it deserves sufficient credit, if it unites under certain principles all facts, with which experience has supplied us. But as experience and observation, the true sources of a practical system, are continually increasing, it is likewise probable, that this may produce changes in the system. Imperfection is therefore a charge by no means sufficient to subvert a system, which in general answers the following requisites: 1. That it proposes general principles as fundamental, abstracted from experience. 2. That these general principles are applicable to all possibles cases. 3. That the applications deduced from those general principles are just and consistent. 4. That they are useful in practice. After having previously given a sketch of Brown's principles, the author proceeds to the criticism in the following chapters: Chap. 1. *On Brown's definition of life*. Chap. 2. *On Brown's excitability*. Chap. 3. *On Brown's principles with respect to the stimuli, as acting upon living bodies*. Chap. 4. *On the laws stated by Brown for excitability and excitement*. Chap. 5. *On Brown's definition of the different states of life*. Chap. 6. *On Brown's diagnostic*. Chap. 7. *On Brown's materia medica*. Chap. 8. *On Brown's therapeutic, and the examination of the Brunonian system in general*, which the author concludes as follows: "After all, we can assert, that the principles of the Brunonian System are almost satisfactory, and the system itself does, with few exceptions, answer the requisites of a system of medicine." How far this may be allowed, we leave our readers to decide.

Ueber die Pulsader Geschwulste, i. e. On Aneurisms and their Surgical Treatment; by Dr. Aug. Fr. Ayrer, 1800, 8vo. with a plate. Gottingen, Dieterich.

This publication comprises every thing that has been written on Aneurisms, their different species, causes, and symptoms, which

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the author has faithfully collected, and to which he has added, the accurate anatomical description of those vessels in which that disease frequently occurs. The author afterwards proceeds to give a critical account of the different methods of treatment and operations used in that disease. Now and then he has interspersed his own observations, made in the hospitals of Italy and France; and proposed an improvement of two instruments for the compression and ligature of the arteries, by which only the vessel is pressed, and not the whole limb. On the whole, it is a very useful compilation, as it contains a complete history of an interesting surgical disease, by which much time is saved to any one, who means to read every thing that has been written on it in different countries.

Plantae rariores Hungariae indigenae Descriptionibus et Iconibus illustratae a comite Francisco Waldstein, Caes. Reg. Camerario et ordinis Melitensis equite et Paulo Kitaibel, M. D. Chem. et Bot. Prof. Pesthin, Decas I. II. III. 1800, gr. folio, pp. 28, and 50 coloured plates, price 15 florins each Decas, or about 1*l*. 5*s*. Vienna, Schauenburg.

It is with pleasure we announce this publication, which is certainly very interesting to a botanist. Of all parts of Europe, the extensive kingdom of Hungary was hitherto but very little, if not at all, botanically searched, and we only know a few plants of that country from the celebrated Mr. Jacquin. Its extent, however, and variety of soil, produces an astonishing variety of vegetables, and many plants. Siberian, Grecian, Piedmontese, Austrian, and even some African, grow here spontaneously, together with some new ones, and the more common plants of Europe. The authors have some years made, and are still making, excursions towards all directions of this kingdom, for the sake of collecting its vegetable productions; of which they intend to figure and describe the rarer and new species. The work is to be published by decades, of which ten will make a volume: the plates are neatly engraved and elegantly coloured, almost in the stile of Jacquin's works, which, however, they surpass in many respects: the descriptions seem to be accurate. The present three decades contain the following rare and new plants, viz. *Lactuca sagittata, Achillea ligulata, Lepidium crassifolium, Scabiosa longifolia, banatica, corniculata; Symphytum cordatum, Alyssum murale, Silene longiflora, Vinca herbacea, Carduus radiatus, Phyteuma canescens, Nymphæa lotus, Cineraria sibirica, Allium atropurpureum, Saxifraga hieracifolia, Crepis rigida, Peucedanum arenarium, Aster canus, &c.*

MEDICAL AND PHYSICAL INTELLIGENCE.

Obſervations on the Effects of Acetic Ether applied by Friction in Rheumatic Complaints, by G. MARTIN. *Read at the Society of Medicine at Paris.*

WHEN I read the memoir of Citizon Sedillot the younger, on the acetic ether, inſerted in the ſecond volume of the Recueil Periodique, &c. I was thinking what an uſeful remedy it would prove in our country, where the frequent change of weather often ſucceeding with aſtoniſhing rapidity, gives occaſion to many rheumatic complaints, if its efficacy was confirmed by numerous experiments carefully made. I ſoon found an opportunity of trying it, and the conſtant ſucceſs, together with the deſire of ſeeing it more generally employed by practitioners for diminiſhing the cruel pains of many people afflicted with rheumatiſms, has induced me to communicate to the Society of Medicine the following obſervations:

Obſerv. 1. Citizen *Viard*, of a choleric temper, 55 years old, had for a long time been ſubject to rheumatic complaints, which attacked the ſuperior as well as inferior parts of the body, but had generally yielded to an antibilious treatment, and the topical applications that are commonly in uſe. The paroxyſms of theſe rheumatic complaints had not recurred ſince the time he began to uſe the hot baths of Rennes; having, however, omitted this for two years, he was, on the 13th of Prairial, attacked with an iſchiatic pain, extending from the hip to the extremity of the foot; the colour of the ſkin was not changed, but only a ſlight inflammation perceived on the lower and outer part of the leg. The two principal ſeats of the pain were about the hip and the articulation of the foot with the leg. Though the patient was without fever, he ſuffered extremely from the acute pains, which hardly let him keep the ſame ſituation for a moment; ſleep had almoſt left him, and he had no appetite, &c. After having uſed for nearly two months different remedies, externally and internally, that ſeemed to be indicated by the preſent ſymptoms, without obtaining much favourable change in the ſtate of the patient, who felt himſelf but very little relieved; I determined to employ the acetic ether in frictions, and got it accordingly prepared after the method of Cit. Sedillot. The patient was now rubbed on the whole extent of the pain every twelve hours, till ſix frictions had been applied, in which, each time, half an ounce of the ether was conſumed. After each friction, the patient was kept warm in his bed. On the third application, he began to feel himſelf relieved; and on the ſixth, he was ſo far cured, that he could walk the next day

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to his country houſe, which was one league diſtant from the town; whereas, three days before, he had not been able to move from one corner of the room to the other. After each friction an agreeable heat ſpread itſelf over the ſkin, which ſeemed to acquire more ſoftneſs, accompanied by a local perſpiration, ſoon becoming general, and continuing for ſome time.

Obſerv. 2. Cit. Eſpallat was affected with a lumbago, attended with ſuch violent pains, that from the firſt attack he could not enjoy the leaſt repoſe. After having been treated, without avail, nearly a month with the uſual remedies, he was told by Cit. Viard of the ſucceſsful effect he had himſelf experienced from the frictions with acetic ether. Being now applied to, I employed the ether accordingly in friction; at the the fourth application of which, the patient found himſelf conſiderably relieved; and after the ſixth, the cure was ſo completely performed, that he left the bed and room, and was able to attend his uſual buſineſs. It is to be remarked, that each friction brought on likewiſe a pretty abundant perſpiration.

Obſerv. 3. Cit. Touret was ſeiz'd with iſchiatica, attended with moſt violent pains. The patient having no fever, I adminiſtered the ether in friction on all the painful parts; however, though the firſt frictions produced an abundant local perſpiration, not any relief was procured to the patient, but the pains laſted with equal vehemence; notwithſtanding this, the ether was continued, and at the fourteenth friction the patient felt himſelf a little better; the pains only remained at the hip, and the middle and outer part of the leg, and though they were ſtill very excruciating, the remedy was continued. At the 24th friction the pains in the hip entirely diſappeared, but in the leg a painful ſenſation ſtill exiſted, though the patient was able to walk with facility, and appetite and reſt were returned; the frictions are ſtill continued with the hope of baniſhing entirely the pain left in the leg. To theſe obſervations I could add many others, confirming the efficacy of that remedy. Some of my colleagues have likewiſe uſed it with ſimilar ſucceſs.

The above obſervations are an additional proof of what has been ſaid by Cit. Sedillot, of this remedy poſſeſſing the advantage of producing an agreeable heat on the ſkin, and a very uſeful perſpiration, without augmenting the irritation or erethiſm in thoſe parts. It ſeems particularly to ſatisfy the indication of opening the pores, and rendering the ſkin permeable for the rheumatic matter.—— (*Recueil Periodique de la Société de Medicine de Paris, No. xliii.*)

Obſervations on the Uſe of Alkalis againſt Accidents occaſioned by Lightning. By Cit. GAULTIER CLAUBRY.

THE effects of lightning are ſometimes ſo ſingular, and vary ſo much in every reſpect, that it would be as tedious to undertake their hiſtory as ſuperfluous to attempt to explain them. The two following obſervations, however, will ſtate ſome facts which may perhaps

perhaps ſeem extraordinary, and deſerve attention; to one of which I have been witneſs, and of the other I was myſelf the ſubject.

Obſerv. 1. Chabot, a woman of the village of Groeſt, near Blois, being occupied in preparing lixivium, was ſtruck by a flaſh of ightning, which extended from the left clavicle in a ſtraight line to the inner ankle, and had cauſed all this way a wound, two lines deep and about three lines wide, in which ſhe at firſt felt a ſlight degree of heat, increaſing ſoon after ſo as to give much pain. One of her acquaintance, anxious to aſſiſt her, applied the firſt remedy which was neareſt at hand, and poured upon her body a conſiderable quantity of cold lixivium, which was made from the aſhes of freſh wood. When I was called, I obſerved in examining the wound, that all thoſe places which had been touched by the lye were of a browniſh colour, and little ſenſible; whereas thoſe parts where it had not touched, had a high red colour, and were riſen in bliſters, attended with violent heat and excruciating pains. Struck by this difference, I did not heſitate, after having opened thoſe puſtules, to cover the whole wound with linen dipped in lye, which was ordered to be repeated four times a day. The patient complaining of a taſte of *gas hydrogéne ſulfuré*, I preſcribed her about half a drachm of carbonate of pot-aſh, or fixed vegetable alkali in a pint of water, ſweetened with ſome ſyrup, and recommended her to drink freely. The following day a ſtrong ſmell of hepatic gas was perceived in the cloaths, and in the urine, which alſo ſhewed on its ſurface, having ſtood for ſome time, an oily matter of the thickneſs of two lines, and with which the cloaths were likewiſe covered. The ſixth day the wound began to dry, and on the tenth it was nearly healed; two purgatives terminated the cure, and the patient found herſelf quite recovered.

Obſerv. 2. The 16th of Floreal, returning on horſeback from the country in exceedingly hot weather, a very heavy ſtorm, attended with continual great flaſhes of lightning and thunder, overtook me on the way. The horſe ſuddenly fell down, and I felt that ſame moment a great heat on my face and hands, and perceived that the hairs of my eye-brows and beard were burnt, and likewiſe the mane of my horſe, which died three days after. The firſt twelve days after this accident, I felt nothing but ſome heat over my whole body, attended with a profuſe perſpiration; and as I happened to have a cold at the time, my expectoration went not only regularly on, but even with more facility. During this time I had a ſlight taſte of hepatic gas in my mouth, which ſmell was alſo perceived by thoſe who approached me. In this quiet ſtate I almoſt began to forget the accident; when, on the twelfth day, I was ſuddenly ſeized with violent convulſions in my arms, which laſted an hour, and at the ſame time I was attacked by a violent head-ach and great pains in the throat; the following night was very reſtleſs, the head-ach more violent, and I was nearly ſuffocated. I was immediately bled at the foot, which I repeated ſome hours after, and by that means the head-ach diminiſhed conſiderably, my reſpiration became more free, and I could ſwallow better; but the hepatic

hepatic ſmell and taſte got almoſt intolerable. I ſlept a few hours during the night, and when I awoke I obſerved that my head and face began to ſwell, which increaſed every moment; beſides this general ſwelling, partial tumours roſe on my face as well as on my head, of which the ſmalleſt were of the ſize of a nut, and at the top of the largeſt, ſmaller ones appeared; they were all hard and red, and cauſed exceſſive heat and pains. My head, whoſe circumference in its natural ſtate is about twenty-two inches, had now almoſt increaſed to above fifty; in proportion as it was ſwelling, the head-ach diminiſhed, together with the pains in the throat; and when it had reached the higheſt degree, it was entirely gone. My head, however, diminiſhed by degrees, as it had begun to ſwell, and on the 10th day the epidermis ſeparated, which was finiſhed in a few days. My urine exhaled, like that of the woman, an inſupportable hepatic ſmell, and my abundant perſpirations had the ſame ſmell, which was ſo ſtrong, that it was almoſt impoſſible for any body to ſtand near me; when my urine had ſtood for a while, an oily cuticula, two lines thick, appeared upon it. The treatment I underwent was very ſimple; after being twice bled, I kept a moſt rigorous regimen; and the good effect I had obſerved from alkali induced me to uſe it likewiſe; I took therefore fifteen drops of ammonia, or alkali volatile fluor every ſix hours, and, indeed, at each doſe I perceived a conſiderable relief. We preſent theſe obſervations for the public, to decide more juſtly by further obſervations, what advantage may be derived from alkalis in curing accidents occaſioned by lightning. *(Ibid.)*

Extract of a Memoir on the Mildew, and the Acid contained therein; read at the Philomatic Society at Paris, by Cit. CHANTRAN.

CIT. CHANTRAN having remarked that the ſtalks bearing blighted ears do not differ from others; and that theſe ears are, at the ſame time, compoſed of good and bad grains, thinks it more likely that this diſeaſe of the corn does not pre-exiſt in the germ of the ſeeds, as has been commonly believed. By analyſing 46 grains of mildew, he found it to contain an acid eaſy to be extracted by thoſe means of the analyſis, which could not ſufficiently act upon it as to produce and form it. Boiling water infuſed with it, quickly reddens blue vegetable tinctures, whereas the reſiduum of this infuſion does not any more ſhow that character. The mildew, freed from its acid, and calcined, at the acceſs of air affords a ſmell like burned horn, and the reſiduum is ſix times more than that of the ſame quantity of meal treated in the ſame way. This, with microſcopical obſervations, ſeems, according to Cit. Chantran, to prove the animality of that ſubſtance, and to mark a greater difference from the meal of corn, than can be produced by a ſimple diſeaſe.

The acid of mildew is not volatile, and may be obtained concentrated by diſtillation. It forms with lime and ammonia an inſoluble

ſoluble ſalt. This laſt character diſtinguiſhes it from phoſphoric acid. Combined with potaſh, it affords a ſalt cryſtallized in ſmall needles, eaſily deliquating, and of a bitter taſte. The carbonate of lime is decompoſed by it.

Cit. Buniva has read a very intereſting Memoir, before the Society of Medicine at Paris, on the Epizootic Diſeaſe of Cats. Theſe animals are ſubject to chronic as well as to acute diſeaſes, epizootic (a word which anſwers to epidemic in man) malige. He deſcribes all the different ſymptoms which attended the acute diſeaſe, by which cats were lately attacked, and periſhed in great numbers, in Italy, France, and Germany; and of which the moſt remarkable is, that, after the ſecond day of the diſeaſe, they loſe the property of electric ſparks being drawn from their back, a phenomenon very obſervable in their ſound ſtate; and likewiſe, thrown from any height, they fall no more on their feet, which they commonly do. The diſſection of the body ſhows gangrenous ſpots in the bowels, &c. Cit. Buniva then enters upon an enquiry into Dr. Mitchell's theory, who derived the origin of contagion from the nitrous oxydated gas, or nitrous dephlogiſticated air, of Prieſtly (ſepton Mitch.); but he found this opinion did not agree with ſeveral experiments he purpoſely made with Vauquelin. This epizootic of cats communicates, according to his obſervations, to cattle, and vice verſa. It is likewiſe obſerved, that ſuch epizootics are fore-runners of an epidemic, and on that account they deſerve the attention of medical men. (*Reçueil Periodique, Vol. XLIV.*)

The Ruſſian Count Mussin-Puschkin has ſucceeded in rendering the metal of platina cryſtallizable, by treating it according to Richter's method, with vitriolated tartar or ſulphat of pot-aſh, and reducing it by means of common ſalt, inſtead of natron. This experiment, however, muſt be made with the greateſt exactneſs, and the fire ought not to be ſtronger than juſt to produce an uniform and ſhining cuticula in the middle of the crucible, becauſe if the fire is too vehement, the metallic particles will go to the bottom of the veſſel in ſmall maſſes, in form of trees, and the cryſtallization in vain be expected. The cryſtals cover the inferior page of the above cuticula in the ſhape of ſmall rhomboid priſms, plates, &c. and have at the firſt ſight, the appearance of the fineſt cryſtals of antimony. The Count gives a ſatisfactory explanation of this proceſs of cryſtallization.——A ſolution of platina in aqua regia, conſiſting of four parts of common ſalt, and five parts of nitrous acid diluted with three parts of water, made in the ſand bath, affords, when the retort is become cool, and two or three parts of the fluid are gone into the receiver, three ſorts of ſalt, cubic nitre, common ſalt faintly tainted with platina, and a new ſalt in form of quadrangular plates, lying in ſtrata one upon another, of a beautiful dark red colour, which particularly diſtinguiſhes itſelf by its eaſy ſolubility from all other ſalts of that metal. It has a gentle aſtringent taſte, and ſuffers eaſy reduction before the tube; but is afterwards not attracted by the loadſtone, nor malleable, except

when

when treated with nitric acid. It is probable, that on account of the quantity of water of cryſtallization which it contains, a greater coheſion of the particles of this metal is produced, than in any other ſalt of platina; a circumſtance, which will probably contribute much to its being with leſs difficulty worked by the hammer, particularly if the metal, after being reduced from the ſalt, is treated with nitric acid. *(Vide Crell's Chemical Annals, in German, No. 2,* 1800.)

The ſame gentleman relates ſome experiments reſpecting the decompoſition of red lead in nitric acid; according to which, this acid ſeems to have a conſiderable effect upon it, contrary to the experiments of Vauquelin. A ſolution of the red lead in that acid is produced in the ſand bath, which, after being ſome time expoſed to the action of light, lets fall cryſtals of a dark red colour, receiving by degrees a metallic appearance. If any acid is poured upon them, a part remains almoſt unaltered, while another forms a precipitation of a yellow colour; and a part of the chromium contained in the red lead ſeems by this to be changed into a calx.—It is likewiſe remarked, that the chromiate of ſilver is decompounded by muriatic acid; but the acid of chromium is with the greateſt difficulty changed into the ſtate of a metallic calx. After a part of the chromium calx is precipitated from the green ſolution of the chromiate of ſilver by alkalis, it produces, by being filtered, a yellowiſh colour; and metallic ſolutions in mineral acids, decompounded by it, afford always chromiates of metals.—The chromiate of iron, an ore which is found in Siberia, and which reſiſts the action of cauſtic alkali as well as nitre in the dry way, is, according to the experiments of the ſame gentleman, eaſily decompounded by detonating it with nitre; a proceſs, he thinks, by which metals moſt obſtinate to analyſe may be decompounded. *(Ibid. No.* 3.)

Prof. Tromsdorf, of Erfurt, has analiyed the blue chalcedony from Siberia, in which, however, he could not trace any metallic particles by repeated experiments, though it ſeemed obvious, from its dark colour, to contain them. The reſult of his experiments was, that it conſiſted of nothing but the pureſt ſiliceous earth; a circumſtance ſo much more remarkable, as other ſpecies of chalcedony have never been found, only pure ſiliceous earths, which appears from the experiments of different chemiſts; viz. Mr. *Bindheim, (Tranſactions of the Society of Friends of Natural Hiſtory, Vol. iii. p.* 429. *in German,)* found in the common chalcedony ſiliceous, aluminous, and calcareous earths, and iron; Mr. *Bergman (in his Opuscul. Chem. Vol. ii. p.* 60*)*; and Mr. *Fuchs (in Leny's Minerological Compendium, p.* 47, *in German)*, beſides ſiliceous earth, aluminous and calcareous earths, and the calces of copper and iron. The blue colour of that foſſil ſeems therefore to depend on a particular ſtate of aggregation in its particles, by which a particular refraction is cauſed. Thus nature forms, in a way inconceivable to us, from

from the ſame ſubſtance, ſiliceous earth, the blue chalcedony, the noble opal, the clear and tranſparent rock cryſtal, and the opaque flint ſtone. (*Ibid. No.* 3.)

Mr. Lowitz, of Peterſburgh, in the ſame Journal, has given a memoir on the nature of the common kali, imperfectly ſaturated with carbonic acid. It is known that we obtain the common kali by the combuſtion and calcination of vegetable bodies in a ſtate but imperfectly ſaturated with carbonic acid. This has hitherto been thought to be merely accidental, in the ſame manner as if, in the artificial compoſition of any neutral ſalt, either of its conſtituent parts is added in too great a proportion; which proceſs is diſtinguiſhed by the name of ſuperſaturation. Now, it may be conſidered either as mechanical or chemical; in the firſt caſe it is accidental, and the ſuper-abundant particle, whether an acid or alkali, eaſily and perfectly ſeparates by cryſtallization, during the drying of the cryſtals, and by alkohol, if the neutral ſalt is inſoluble in it. On the contrary, in the chemical ſuperſaturation, the ſeparation of the ſuper-abundant particle is by no means effected in this way, but a proper combination of a ſalt is formed, poſſeſſing properties different from thoſe, which are obvious in it when it is perfectly and equally ſaturated. The borax, ſublimate, &c. are inſtances of the kind. By different experiments relating to the above obſervation, the common alkali has proved to be alſo a ſalt, which, like borax, is chemically ſuperſaturated with its alkaline baſis. (*Ibid.*)

The ſame chemiſt attributes the purifying property of the charcoal to a chemical action, though it has been conſidered, by the moſt celebrated chemiſts, merely to act mechanically in rendering different fluids pure and clear. But if this only depended on its porous and ſpongy quality, it would not be poſſible for it to have any effect by being reduced to a powder; of which, however, experience ſhows the contrary, as it appears more efficacious the finer it is pulveriſed; and it keeps that property, even when by wetting it with water its poroſity is entirely deſtroyed. If the diſcolouring of any fluid by the powder of charcoal, depended merely upon its mechanically imbibing the colouring particles, it would be practicable to make them again appear by a proper treatment, after having ſeparated the powder from the diſcoloured fluid. But this is by no means to be effected; likewiſe the ſmell, or oily particles which have been taken from any fluid by coals, would be perceived in them afterwards, which is never obſerved. The powder of the charcoal, beſides, is able to diſcolour a chemical ſolution of colouring matter in water or ſpirits; and this muſt therefore probably be effected chemically. It appears by this, that the powder of charcoal enters into a chemical combination with thoſe particles, from which its addition frees different fluids. The chemical affinity of them ſeems ſtill more evident by the following experiment. One or two drachms of the powder of charcoal be-

 ing,

ing, by washing, perfectly freed from any adhering alkaline particles, are boiled in a considerable quantity of water till all the air contained in its pores is expelled, and itself sinks to the bottom from its greater specific gravity. Having distributed this into four different glasses, and added to the first a portion of any gross oil; to the second, some vitriolic ether; to the third, alkohol, all of which are lighter than water, the powder of the charcoal combines itself with these substances, and swims with them upon the surface of the water; but if the essential oil of cloves (oleum caryophyllorum) or any other ponderous oil, is put into the fourth glass, the powder of the charcoal will sink with it to the bottom, and the water become quite clear; all which facts are difficult to be explained in a mechanical manner; it can only be allowed, that the powder of charcoal purifies turbid fluids by a mechanic action. *(Ibid. No. 3.)*

Mr. Lichtenberg, of Berlin, has found by his experiments, that a method of purifying nitric acid from sulphuric and muriatic acid by means of lead, as proposed by Vaquelin, did not answer the purpose. Sulphuric acid and nitric acid, which contained muriatic acid, were poured into a retort, in which a proportionable quantity of litharge of silver had been previously placed. Having distilled the acid, it was found to be still more impregnated with muriatic acid than before; the residuum in the retort consisted chiefly of nitrate of lead and a small quantity of sulphat of lead. The nitric acid is, indeed, freed by this method from sulphuric acid, but by no means from the muriatic acid. A more certain method of purifying nitric acid seems to be the following; namely, to dissolve the nitre in water previously to the distillation of the acid, and to purify it by the addition of the nitrate of silver, after which the nitre must be again crystallized before it is employed in the distillation.

Prof. Hermbstaedt has made several chemical experiments with the leaves and roots of the tulip tree, (Liriodendron tulipifera, L.) recommended as an useful bitter. The leaves of this tree, which possess somewhat of a sharp and bitter taste, were squeezed in a stone mortar, and the juice expressed; from which, after six hours, a glutinous matter of a green colour separated, coagulating by alkohol in the temperature of boiling water, and burning with the smell of horn, which, consequently, was occasioned by its vegetable albuminous matter. The juice being filtered and mixed with alkohol, still produced a portion of albuminous matter; the rest of it, treated accordingly, contained a great deal of saponaceous principle, some gum, a little resin, and likewise an astringent quality. Another portion of the juice, after being freed from albuminous matter by being twice boiled, was thickened to an extract of a very bitter taste. A similar extract was obtained from the juice of leaves which were repeatedly boiled in water. Alkohol, digested with the leaves, extracts a tincture

containing

containing ſcarcely any thing but ſaponaceous matter. The rinds of the younger roots have a ſmell and taſte much like Canella Alba; and this aromatic matter is extracted by alkohol, together with ſome reſin and eſſential oil.

We are in poſſeſſion of a Memoir of the ſame able Chemiſt, on the chemical analyſis of animal bodies, ſimilar to what has been publiſhed by him on the vegetable productions, which we ſhall take an early opportunity of communicating to our readers.

We find the uſe of the Semina Phellandrii Aquatici, L. which have been mentioned in this Journal as a remedy in pulmonary conſumptions, likewiſe recommended by a phyſician in Saxony in old ſore legs; and a caſe is related, where a patient who had had ſore legs many years, and which reſiſted all kinds of treatment, was at length cured in the courſe of ſeven weeks by Semina Phellandrii Aquatici, given in the doſe of one ounce per day.

Mr. Hirsh, a German dentiſt, recommends in the tooth-ach, grubs of Cynips Roſae, an inſect which cauſes the excreſcences found on wild roſe buſhes, and known under the name of Spongia Cynoſbatos, or Fungus Bedeguar, in which thoſe little worms are met with. They are to be ſqueezed between the fingers, and the affected tooth or gums repeatedly rubbed with them; when the tooth-ach ceaſes, or, at leaſt, is much diminiſhed. *(Hufeland's Practical Journal.)*

Brugnatelli propoſes a new arrangement of mineral waters, by dividing them into four claſſes:

1. Saline mineral waters, mineraliſed by terreous, alkaline, or metallic ſalts.

2. Saline acidulated mineral waters, which contain a free acid beſides the ſalts.

3. Saline ſulphureous mineral waters, in which, beſides the ſalts, ſulphur and ſimilar parts are met with.

4. Sulphureous mineral waters, which contain ſulphur in different proportions and ſtates, but never any ſalt. *(Annali di Chemica et Storia Naturale, Tom. XVII.* 1798, No. 101.*)*

The ſame chemiſt conſiders the formation of ethers as an oxygenation, or, as he calls it, thermoxygenation, of alkohol with an oxyd gas, gas oxyde. *(Ibid.)*

The Obſidian, a volcanic foſſil of Iceland, has been lately analyſed by Prof. Tromſdorf, of Erfurt, and found to contain 63, ſiliceous earth, 20,5 aluminous, and 13,5 oxyd of iron. A black feldſpar, found in the Baſalt, contains, according to the ſame, 66,5 aluminous earth, 15,0 ſiliceous, 6,5 oxyd of iron, and 9,0 oxyd of mangaueſe. *(Annales de Chemie, No.* 101.*)*

Prof.

Prof. Arneman, on Acoustic Tubes.

[With an Engraving.]

The use of acoustic tubes, (hearing trumpets) depends on two points; 1. That the sound is put into a stronger vibrating motion through the medium of the metal, and at the same time; 2. That a resonance, and new reflection of the sound, is produced.

The sound increases and becomes stronger by these instruments, but if they are not properly constructed, it is likewise made less distinguishable. The best acoustic tubes are the most simple ones, either quite straight, or with a little curvity. It is also essential, they should have a wide opening to receive a greater portion of sound, and by which it is brought at the same time more condensed to the organs of hearing. Those that are much curved, have no great effect, and likewise the inconvenience that on account of their curved line they cannot be worked so even by the artist. The same may be said of the conoidical tubes, in which the sound ceases to be reflected at the place where the angle grows greater than a right one, and becomes retrograde; because, according to Lambert's Observations, (on Acoustic Instruments, in German) the angles of reflection increase like unequal numbers; and the last which can be admitted, must not exceed 90°. The form of an entire cone, is therefore by no means calculated for propagating the sound, which, having entered, goes out again, without reaching the top of the cone. The parabolic form is the fittest for the construction of acoustic tubes, into which the sound enters in a direction parallel with the axis, and is by reflection concentrated as it were in a focus. Acoustic instruments with an hemisphere to them, are inferior to these, because the sound is only reflected from the centre, and at the same time not so easily intercepted.

However, it seems that the construction of these instruments has not been brought to so great a perfection, as not to admit some improvements founded upon practice and experience. For the purpose of promoting this, Mr. Arneman intends to give, by degrees, figures and descriptions of those that have proved most useful by experience, and he invites all practitioners in Germany, who have had an opportunity of making observations to this subject, to communicate any instrument of the kind they have applied with success, by which means much would be contributed to a more perfect and sure method of diminishing those inconveniences arising from difficult hearing, for which so many seek advice and relief in vain, against an evil, which makes men unfit for enjoying life from the most interesting mean, that of communicating and receiving ideas by word of mouth. The public would, we trust, be likewise much obliged to the Editors of this Journal, if they could persuade the practitioners of this country, to impart their experience on this subject here, and to contribute to such an useful and humane undertaking. As they hope not to fail in their requests,

requests, they should with pleasure receive any communication respecting the subject.

The inventor of the present instrument (see the Plate) is not known, but it belongs certainly to the best of the kind that we know of. It is made of thin brass or copper, and should not weigh more than eight ounces, whereby it becomes very portable, and may as well serve for the right as for the left ear. To enable any artist to make this instrument accurately, it has been thought proper to add the dimensions of the different parts of which it is composed. H G I F is the cup, of which H I has 3 Paris inches, 6 lines in diameter. F G = 2 Paris inches, 10 lines. H F is = 3 Paris inches, 1 line. F G is the bottom of the cup, which must particularly be made with exactness, because the use of the instrument depends in a great measure on its construction. It may be made as the segment of a circle whose radius is = 2 inches, 7 lines, Paris; but it is still better to give a parabolic form to the segment, whose focus is 1 inch Paris. For this purpose it is necessary to work after a certain model or standard, of which Fig. II. gives an idea, after which the bottom must be accurately made. The inside ought to be smooth and well polished, the whole afterwards soldered on, when the instrument is put together. The others are, that which receives the sound, D E, and the conducting tube, which carries it to the ear, K L B. The former is to be performed in the same parabolic form as the bottom of the cup, and must therefore be exactly worked after the above Fig. 2, except that its chord is by 4 or 5 Paris inches smaller than the bottom. In the middle of this part, D E, a hole is made, whose diameter is 1 Paris inch $2\frac{1}{2}$ lines, which is at the same time the lower diameter of the tube K L, its upper diameter in A being only 6 lines. The length of the tube from K L to A, is 5 inches 10 lines. This must now be bent in such a manner, that K L and A make an angle of 90°. Being well polished inside, the part D E is soldered into it, and the whole conducting tube fastened to the cup in I L, so that D E is equally distant from all sides of the cup in an exact horizontal direction, and the focus of the part D E likewise sufficiently distant from the focus of the bottom. In A another piece of tube is put on, of 9 inches in length, and fastened to it by means of a ring on the former A, at the distance of 1 inch from its end, with an opening in its periphery, through which a hook may pass, and turning this afterwards, the tube becomes one contiguous piece. On the curvation in B, a top of bone, ivory, or horn is put, to prevent the ear being irritated and inflamed, which may otherwise be caused by the metal. The last part is the cover, H I, perforated with holes, of which Fig. III. shows the profile. The part A B being taken off, the instrument may be conveniently carried in the pocket. It can also be fastened to the body by ribbands, by means of two clinchers in M N, and thus even used in going a shooting, &c. *(Arneman's Magazine, Vol. ii. No. 3.)*

Hints

Hints for Improvements.

Physicians in all ages have said, that in epilepsy the brain, or a particular state of the nerves, transmitted this affection to other parts, and were the primary seats of these disorders; and, in fact, this has been demonstrated from pathological phenomena, by several anatomists and observers. Those epilepsies which have their seat immediately in the brain, have been found the most difficult to cure, but those which have arisen in the trunk or extremities, have been more easily removed. For these latter species, Monf. Portal, an eminent and respectable practitioner in Paris, is of opinion that topical applications produce very beneficial effects, and mentions several cases which he had cured, by rubbing the part affected with the *Oleum Animale de Dippel, (Ol. Cornu Cervi rectificat.)* after having used the whole tribe of nervous medicines, with bark, zinc, opium, and blisters, in vain. In another case, where a convulsive epileptic affection was attended with considerable pain in the right foot, which had been much injured by a fall; both the pain and the epilepsy were speedily removed by rubbing the part with a solution of opium in the *Ol. Animale de Dippel.*—This application might be tried in locked jaws.

An Essay on Medical and Chirurgical Education, by Mr. PARKINSON, of Hoxton Square, Author of the Chemical Pocket Book, Medical Admonitions, &c. we understand is in the press, and will be published at the meeting of the Classes of the different Lectures, to be entitled THE PUPIL, and is proposed to contain, 1. Remarks on the qualifications required for those intended for Medical Students; 2. A mode of education proposed instead of that by apprenticeship; 3. Hints addressed to Hospital Pupils; 4. Advice to young men in their first establishment in the Profession.

To CORRESPONDENTS.

The Communications which have been received, shall be noticed as soon as possible.

The Editors will thank Mr. Samuel Thomas for his address.

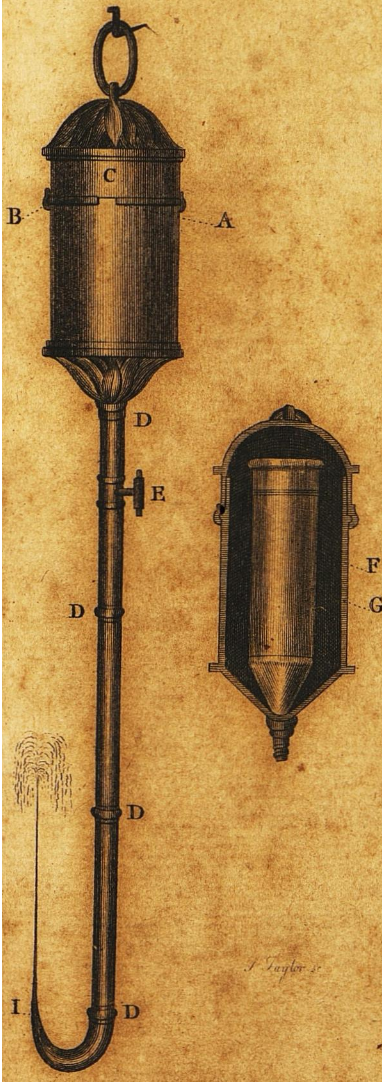
Several of our Correspondents have favoured us with Reviews of Medical Works, and for which we should have been much obliged to them, if we professed to criticise books; but it will be obvious, that Editors, who give their names to the Public, cannot enter the lists of criticism. It is the design of our Retrospect of Books, to put it in the power of our Readers to judge for themselves; and therefore we endeavour to give the Authors of Medical Works an opportunity of being heard in their own cause, by selections from the works themselves.

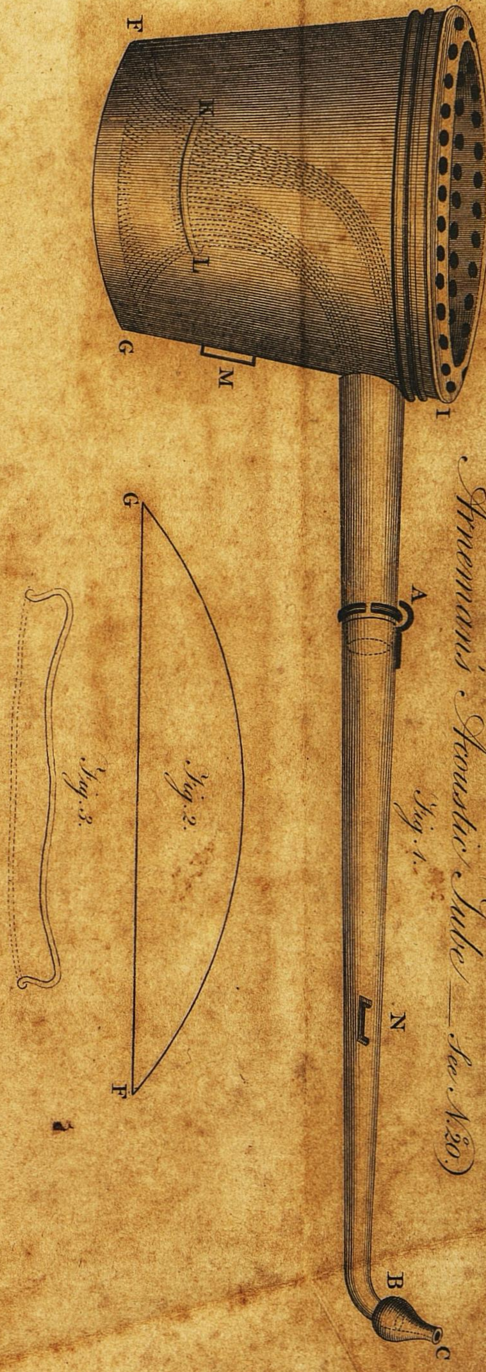
ERRATA.

Vol. IV. p. 208, l. 16, for *cretacea*, read *cretaceæ*.
210, l. 16, for *nitrorsi*, read *nitrosi*; and for *eadem*, read *eandem*.
240, l. 12, for *excluded from*, read *exposed to*.
—— l. 2, Note, dele *morbid or*.
246, l. 5, for *mixture*, read tincture.

Mr. Humbolt's Anthracometer

See Page 179.





Published, Oct. 1.1800, by R Phillips, 71 St. Paul's Church Yard.

These circumstances led Mr. Lupton to conceive that there might be a disease incident to the horse analagous to the Cow-Pox, and communicable to the cow; and upon repeated enquiry he was satisfied that it was not the common grease to which horses are liable, that had produced the above effects.

Mr. Lupton was so good as to communicate this information to me at the time, treating it as a matter of curiosity, rather than of serious investigation, and I heard no more from him on this subject till the 8th of April, when I received the following letter, which I give you in his own words.

DEAR SIR,

Since my last letter respecting Mr. Way's son, I have had another case of infection, communicated to the human subject, owing to matter absorbed from the ulcerated heels of a horse. The person is Richard Hunt, a servant of Mr. Randolph, of Thame Park Farm, whose first symptoms were stiffness and uneasiness of the arm, swelling of the axillary glands, succeeded by pustules on the hand, and a very painful suppuration of the middle finger, which had that blue appearance described by Dr. Jenner, as indicating the true vaccine disease; these were accompanied with rigors frequently recurring, attended with great heat, anxiety, giddiness, pain in the head and back, sickness, and vomiting.

Such were the appearances when I first saw him, which was on Sunday, March 30. On the 31st, he had a very bad night, and had been slightly delirious, the other arm growing stiff and painful. April 1st, was much better in every respect, except the painful state of the finger, and the inflammation of the hand and arm: the course of the lymphatics were at this time beautifully marked with streaks of a vivid red colour extending from the wrist to the axilla. April 2d, continued better. April 3d, had a bad night from the pain of the finger; a puncture was now made, and about two tea-spoons full of a dark brown coloured fluid were discharged. April 4th, the cuticle was now removed, and discovered a shining red ulcerated surface, in the middle of which was a spot of a sloughy appearance, of the size of a silver penny; this was covered with the red nitrate of quicksilver: the inflammation, pain, and swelling of the hand and arm were now considerably abated, and in other respects he was much relieved. April 6th, the finger much better; the pustules of the hand had a dark coloured depression in the centre, surrounded with an elevated margin of matter. From this time he had no complaint. It must be particularly remarked that this man has not milked any cow since last Michaelmas.

Thame, April 8, 1800.

On

On the 9th of April, a ſecond ſervant of Mr. Randolph, John Watſon, applied to Mr. Lupton, with ſymptoms ſimilar to thoſe of Richard Hunt, in conſequence of having aſſiſted him in dreſſing the heels of the horſe; Watſon's office and employment in the farm at this time was that of milking the cows.

Previous, however, to the appearance of ulceration upon the man's hands, the cows had been infected more than a week, and there can be no doubt but that the cows had received their infection from the horſe, through the medium of this ſervant. Whether the hands of this man were ulcerated from the immediate effect of the matter received from the heels of the horſe, as on that occaſion he was aſſiſtant only; or immediately from its modification in the teats of the cow, may admit of doubt. But from the fulleſt inveſtigation, I am perſuaded there can be no doubt as to the fact of the matter having been conveyed from the horſe's heels to the cows by this laſt mentioned ſervant.

Such was the progreſs of this hiſtory previous to the 18th of May, when happening to be at Thame, Mr. Lupton informed me that a third ſervant of Mr. Randolph (Leonard Paling) was affected in a manner ſimilar to that in which the two former had been attacked. In conſequence of this I had the curioſity to ſend for him; and on examination we were thoroughly convinced that he had received the infection ſolely from the cows, as he had never aſſiſted in dreſſing the heels of the horſe.

I found the appearances on his hand exactly correſponding with thoſe already deſcribed; I obſerved one of the axillary glands ſtill enlarged and very tender; and from his own ſtatement his whole ſyſtem had been very much diſturbed, evidently the effect of the ulceration on his hand.

Thus, dear ſir, we have ſeen a complete ſeries of facts relative to the progreſs of this very important diſeaſe as affecting the human frame, eſtabliſhing its origin in a diſorder of the horſe's heels, by farriers termed a ſcratchy heel, and conſidered as widely different from common greaſe.

The firſt ſervant was infected from the horſe, having never milked the cows; the ſecond carried the infection from the horſe to the cows; and the third received it ſolely from the cows.

I have only to add that from the laſt ſervant, Leonard Paling, Mr. Lupton inoculated ſeveral children.

Some of theſe I ſaw on the 8th day after inoculation, with the moſt decided appearance of true Cow-Pox upon them. This appearance, I could not miſtake after having witneſſed ſo many inſtances of it at our friend's, Mr. Fermor of Tuſmore, whoſe

 benevolent

benevolent and diſintereſted exertions have contributed ſo largely to the ſtock of facts in ſupport of a diſcovery, which, if the powerful argument of induction may be allowed, bids fair to be of the greateſt benefit to mankind. It is proper to add, that in all theſe children the diſeaſe terminated as uſual, favourably.

One circumſtance was remarkable in all the three ſervants above mentioned, viz. that before any abſolute ulceration or even ſenſation of pain took place on their hands, they had been previouſly affected by ſwellings in the axilla, and other ſymptoms denoting conſtitutional diſeaſe; and the ſecond ſervant (Watſon) aſſured me repeatedly, that though both his hands had been ulcerated, a ſwelling firſt appeared in the axilla of the left arm, was followed by ſickneſs, head-ache, &c. &c.; after which the ulceration commenced in the palm of the right hand between the fore finger and thumb.

As not one of the perſons above mentioned have had the Small-Pox, it is Mr. Lupton's intention to inoculate them as ſoon as he can find a ſuitable opportunity; and when that occurs you ſhall be informed of the reſult. I have the honour to be,

Dear Sir,

Your very ſincere humble ſervant,

Oxford, Oct. 3, 1800. CHRIST. PEGGE.

To the Editors of the Medical and Phyſical Journal.

Gentlemen,

I Have read with conſiderable pleaſure, in a former Number of your extenſively uſeful Journal, a paper by Dr. Magennis, on his treatment of dropſical caſes*. His preliminary obſervations on the accuſtomed plan of treating that diſeaſe appeared to me ſo well founded, his arguments in favour of a different one ſo concluſive, and the mode he has adopted ſo well calculated to inſure ſucceſs, that I was fully reſolved to try its efficacy in the firſt caſe that occurred of the dropſical kind, and which happened in a very ſhort time after I had read the account; the reſult of which I beg leave to communicate.

I was called to attend an aged lady, about 70, who had laboured under an Hydro-thorax for ſome months; ſhe had a ſmall but quick and very irregular pulſe, great palpitation on taking

* Vol. IV. page 212.

the leaſt exerciſe, and was incapable of remaining in the horizontal poſture at night above two hours; when ſhe was ſuddenly ſeized by a ſenſe of ſuffocation, and was conſtrained to riſe and ſit in her chair to paſs away the remaining dreary hours; her breath was exceedingly ſhort, her appetite very much impaired, and her whole frame in an emaciated ſtate. She had been under the uſual mode of treatment for ſome time, but with very little ſucceſs; indeed, from her advanced period in life, and the particular nature of that ſpecies of dropſy, the caſe wore a very unpromiſing aſpect, as it ſcarcely needs be obſerved how ſeldom that diſeaſe yields to the moſt rational treatment, and under the moſt favourable appearances.

I began to exhibit the medicine much in the ſame form and doſe as Dr. M. mentions in his own practice, only ſubſtituting the *ammon. pp.* for the *fixed alkali*, and the *miſt. camph.* as the baſis inſtead of the *aq. menth. ſat.* which I thought more congenial to my patient's conſtitution.

On calling the following day I was much pleaſed to find, that after having taken a doſe of the medicine every ſix hours, it had perfectly agreed with the ſtomach, and ſome little increaſe had been obtained as to the quantity of urine voided; this I thought a favourable ſymptom, and I was encouraged to perſevere in the uſe of the ſame medicines with a very ſmall augmentation of their doſes; and as I expected that the principal relief was to be obtained by a determination to the kidneys producing a copious flow of urine, I deſired the nurſe to be very particular in aſcertaining the quantity of water evacuated every day, and likewiſe that of liquids taken into the ſyſtem in the ſame given time. I found upon enquiring into theſe two circumſtances the following day, that about *four pints* of urine had been evacuated, and not above a *pint* of liquids drank; and had the happineſs of finding my patient materially relieved. She had been able the preceding night to lie in bed, and obtained ſome reſt; her breath was conſiderably liberated, the palpitation very much decreaſed, and the anaſarcous ſwellings of the legs (which I had omitted to mention in the firſt account of her caſe) greatly diminiſhed. Having every encouragement to proceed, I perſiſted in the uſe of the remedies without any alteration, excepting a very inconſiderable addition to the quantities of the active ingredients, and found for the two or three following days nearly the ſame evacuation as to urine, bearing a ſimilar proportion to the liquids taken as mentioned above. It appeared to me now, from the abſence of the ſymptoms attendant on Hydro-thorax, that the diſeaſe was ſubdued, and the water collected in the cheſt drained away; for the breathing was uninterrupted, and the palpitation entirely ceaſed; therefore

therefore I thought it unnecessary to persist in the *diuretic plan* any longer. But notwithstanding the disease itself was removed, I knew there was considerable debility left; and to obviate which, to fortify the system by a course of powerful tonics, appeared to me the most effectual means of securing the patient against a relapse; consequently, I ordered her the *decoct. cinchonæ* joined with *zinc. vitr.* &c. three or four times a day with the happiest effects; for, in two or three weeks afterwards her appetite was quite restored, her general strength recovered; and at this present time she enjoys a state of general good health, to which for many months before she was an utter stranger.

Thus have I briefly stated a successful case, the communication of which I could not with propriety withhold from public perusal, hoping it may conduce to general utility in the treatment of a disease which has often baffled the skill of the most sagacious in the profession; and should the insertion of it tend to this salutary purpose, the writer will be highly gratified in having an opportunity of casting in his mite to the treasury of the public good. I am,

GENTLEMEN,

Your's, respectfully,

H. DAVIES.

Piccadilly,
October 14, 1800.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

PLEASE to insert the inclosed copy of Dr. Marshall's letter in the next Number of your Journal. I am,

GENTLEMEN,

Your's, &c.

JOHN RING.

New-Street, Hanover-Square,
October 16, 1800.

Copy of a Letter from Dr. Marshall to Mr. Ring, dated Gibraltar, August 23, 1800.

MY DEAR SIR,

I make no doubt of the satisfaction you will feel when I inform you of the very polite reception and great attention we have met with from the Governor-General O'Hara, who interests himself much in the success of that great discovery of which

which we are the miſſionaries; and ſet the example to the garriſon by having his own infant inoculated. We have ſince inoculated the ſoldiers of the garriſon and their children, who have not had the Small-pox, and to-morrow we expect to ſail for Minorca, with recommendations to inoculate the Engliſh army now lying there.

From the medical men here, we have met with the moſt liberal and polite attention; and I am further happy to add, that all are equally convinced of the efficacy of the Cow-pox in reſiſting the Small-pox, and of the great reward due to our friend, Dr. Jenner, for the benefit he has conferred upon ſociety and the world at large, by his inveſtigation of this ſo peculiarly mild and ſafe diſeaſe.

In this warm, and in compariſon with England, hot climate, we have not obſerved any diſſimilarity of ſymptoms in the progreſs of the diſeaſe from what is uſual in England.

The Governor has applied to the court of Madrid, to obtain liberty for us to go there to inoculate; and it is probable, that upon our return to England, we may ſtop there a ſhort time. Some of the matter we uſed for inoculation here, was what you obligingly furniſhed me with; and we find it perfectly efficacious, although no precaution had been uſed as to the preſerving it more than putting it into a ſmall phial.

I ſhall from Minorca ſend you the reſult of our inoculation, though I have no doubt of its proving as ſucceſsful as it has done here.

Dr. Walker begs to preſent with me our joint reſpects and good wiſhes. Believe me ever

Your obliged friend,

J. H. MARSHALL.

To the Editors of the Medical and Phyſical Journal.

GENTLEMEN,

IT afforded me no ſmall degree of ſatisfaction to obſerve in your Fourteenth Number, Mr. Carliſle's Remarks on the Uſe of Cauſtic, ſeveral of which appear to me to be pertinent and judicious; his motives every one muſt approve.

Induced by the ſame ſentiments, I beg leave to contribute my mite through the channel of your uſeful Journal.

Mr. Home, in his Treatiſe on Strictures, ſpeaking of the Urethra, obſerves, that "When the urine paſſes, the canal is large;

large; when the ſemen is thrown out it is ſmall, the membrane having a power of adapting itſelf to theſe two different ſtates; and this power of action within itſelf is ſimilar to muſcular contraction and relaxation."

Does this action in the canal of the urethra take place in reality? I apprehend not; and the matter may be explained in another way.

In the emiſſion of ſemen, the penis is commonly erected; a greater quantity of blood than uſual is at this time lodged in the cells of the corpora cavernoſa penis, which *compreſſes* the ſides of the urethra; that this happens I infer from the difficulty that occurs during erection to void urine, which paſſes then in a ſmall divided ſtream.

We judge of a ſtricture in the urethra by the difficulty the patient complains of in making water; by his frequent deſire to void it, in doing which it is attended with pain, and comes away in ſmall quantities, either in drops or in a narrow contracted ſtream; and laſtly, by examination with a bougie or catheter.

A diſcharge from the urethra, ſimilar to a gleet, is I preſume not an unfrequent attendant on ſtricture; and extraneous ſubſtances, ſuch as ſtones, are ſometimes found in the paſſage, which, however, are readily diſtinguiſhed by the touch on introducing the ſound.

With reſpect to the proximate cauſe, we learn from Mr. Home, who has examined the diſeaſe by diſſection after death, that there is a doubling of the membrane and narrowing of the urethra in particular parts, which when the contraction is increaſed, becomes a ridge projecting into the canal, behind which ulceration is ſometimes obſerved.

In the treatment of ſtrictures, without having recourſe to the knife, two methods have been adopted; the one is by the introduction of bougies, and the other by the application of cauſtic.

In the former, the bougies act by their mechanical preſſure, and thus dilate the canal of the urethra; this dilatation is however merely temporary, and I have known gentlemen uſe bougies for years without the ſtricture being removed. The other mode of treatment, viz. the application of cauſtic, was recommended and practiſed by the late Mr. Hunter; ſince his death, it has been greatly improved by Mr. Home, whoſe knowledge and great experience in the treatment of ſtrictures every one will allow.

This practice of applying cauſtic to ſtrictures of the urethra is ſtill in its infancy, and it becomes an object of importance to know whether or not it anſwers the end propoſed; at the ſame time

time I beg leave to ſay that it has aſtoniſhed me to obſerve gentlemen condemn the practice without giving it a trial.

Mr. Carliſle has mentioned a caſe where the cauſtic was uſed, and followed by a profuſe hæmorrhage.

It would be reflecting on his practice, to ſuppoſe in the caſe he alludes to, the cauſtic had been too long or too extenſively applied, by which a high degree of inflammation might have been induced, and thus have occaſioned the hæmorrhage. The particulars of the caſe I know not; but in a caſe of highly inflamed phymoſis, I have known the application of half a dozen of leeches to the prepuce followed by a profuſe bleeding, which was, however, attended with the beſt effects.

Before uſing the cauſtic, it is neceſſary to aſcertain the diſeaſe, with its ſituation; and this we do by means of a bougie, made either of poliſhed leather or the elaſtic gum; the latter is preferable, as it is not ſo hard, and is ſufficiently elaſtic. On introducing it into the urethra, we are not to imagine, that in every ſtoppage we meet with, there is a ſtricture, becauſe the point of the bougie may have plunged into one of the lacunæ; add to this, the effect induced by irritation. We are to pauſe ſome little time, then to turn round the bougie, and raiſing the point by lowering the other end, we try to puſh it gently on.

Let us next ſuppoſe that we meet with an obſtruction, and that the caput gallinaginis (which is commonly ſituated in an adult little more than eight inches from the external orifice of the urethra) is out of the queſtion, we are now to withdraw the bougie, and introduce another made of ſoft materials, exactly to the ſame extent, by which we take off the impreſſion; with this and the other ſymptoms, we judge of the ſtricture. This being determined, we are then to introduce a third bougie, properly armed with cauſtic, and oppoſe it to the ſtricture for the ſpace of fifty ſeconds, or a minute; beyond ninety ſeconds I have not applied a cauſtic bougie to a ſtricture.

With reſpect to the ſize of bougies, I confeſs that I have not been in the practice of uſing ſuch large ones as others have done; thoſe that I have employed, have not exceeded in diameter a fifth, or at moſt a quarter of an inch.

The caſts of the urethra taken by Mr. Home from the dead ſubject, cannot regulate the urethra of a living perſon. He talks of the canal, meaning the urethra, paſſing over the proſtate gland. Anatomy tells me, that the portion of the urethra which is next to the bladder, is ſurrounded by the proſtate gland; of courſe, it paſſes *through*, and not *over* the gland.

With regard to the effects of cauſtic, although I cannot in my ſhort experience boaſt of cures performed, yet I have noticed, after the uſe of cauſtic, that the urine has been voided

in a free regular ſtream; that the pain attending it is trifling; and no one untoward ſymptom has hitherto occurred.

I was not a little ſurpriſed in the caſe of an officer belonging to the navy, where I had removed two ſtrictures; the firſt, four inches and a half from the external orifice, ſeemed to be removed by two touches of the cauſtic; the other, ſix inches and a half from the orifice, required twelve applications, in the laſt a ſlight hæmorrhage enſued; a common ſized bougie paſſed eaſily into the bladder. I expected now to have no difficulty; two days after, however, I was ſurpriſed to find that I could not paſs the bougie beyond the place where the firſt ſtricture had been. I had recourſe again to the cauſtic, which was only uſed once; no difficulty has ſince occurred in paſſing a bougie on to the bladder, and the gentleman is now without complaint. The diſeaſe was of two years ſtanding.

I have the honour to be, GENTLEMEN,
Your moſt obedient humble ſervant,
ALEXANDER ABERDOUR.

Prince's Place, Lambeth,
Oct. 13, 1800.

Case of a diseased Bladder, with Enlargement of the Prostate Gland, and other morbid Appearances. By EDWARD FORD, F. S. A. Surgeon to the Weſtminſter General Diſpenſary.

[With an Engraving.]

To the EDITORS of the MEDICAL and PHYSICAL JOURNAL.

Gentlemen,

AS the Drawing which accompanies this caſe, exhibits ſome uncommon appearances, I have ſent it to you for publication in the Medical and Phyſical Journal, if you think it will not be unacceptable to your readers. Specimens of ſacculi in the bladder, and of falſe paſſages in the urethra, are probably to be ſeen amongſt the morbid preparations of many anatomiſts; but the hiſtories of ſuch diſeaſes have not been ſo frequently offered to the public as their importance requires.

Bonetus has recorded inſtances of ſtones depoſited in ſacs of the bladder; and Morgagni has enriched this ſubject by the recital of caſes, in which a ſtone was ſometimes diſtinctly felt, and at other times could not be perceived, the cauſe of ſuch uncertainty being afterwards found to ariſe from ſacculi; ſo that this illuſtrious writer thought it neceſſary to warn the lithotomiſt,

A diseased Bladder with an extraordinary enlargement of the prostate Gland.

Drawn by Dr. Baily. Skelton, fc.

Printed for R. Phillips, No. 71, St. Paul's Church Yard.

enough to introduce a ſound into the bladder, but was not able to diſcover that it contained a calculus. He proceeded in this melancholy way for ſeveral months, with ſhort intervals of eaſe procured at times by the drawing off his urine, by anodyne gliſters, by aperient medicines, by the warm bath, and ſuch other temporary expedients as the exigence of the moment ſeemed to require.

In the beginning of laſt Auguſt his health gradually declined; his appetite failed; the bowels became more conſtipated; the deſire of voiding his urine became more frequent and painful; he was tormented with a violent pain in his back and loins; and the diſcharge from his bladder was bloody, purulent, and fœtid; ſoon after, a tenſion took place in the cavity of the abdomen, ſucceeded by a colliquative purging, and he became heavy, comatoſe, and died.

The body was opened on the ſucceeding day, in the preſence of Mr. Pooly, his apothecary; and the appearances on diſſection fully explained the ſymptoms which the patient had ſuffered.

The thoracic viſcera were in a ſound and healthy ſtate.

In the cavity of the abdomen, the liver, gall bladder, omentum, ſpleen, ſtomach, and pancreas ſhewed no marks of diſeaſe; ſome portions of the inteſtinal canal were a little inflamed, the kidneys were both conſiderably ſo; the bladder was contracted, and contained a ſmall quantity of purulent urine; and a ſtone about the ſize of a cheſnut was found ſlightly adhering to an ulcerated ſurface near the proſtate gland; the internal membrane of the bladder was in a black, gangrenous ſtate, very offenſive, and nearly approaching to mortification.

On the left ſide of the bladder, near the termination of the ureter, was a pouch communicating with the bladder, and correſponding in ſize and figure with the ſtone, which poſſibly might have been formed in that receſs; and afterwards paſſing from thence, fixed itſelf to the neck of the bladder, thereby increaſing the painful ſymptoms of this diſeaſe.

In the lower part of the left ureter there was another ſmall ſac, which alſo contained a calculus.

The proſtate gland was enlarged very conſiderably.

On examining the urethra, a ſmall valvular orifice was ſeen on its ſuperior part, about an inch from the neck of the bladder, to which the opening immediately led, without penetrating its inner coat; it was ſufficiently large to admit the bulbous end of a catheter; and from its ſituation, it is highly probable that whenever a ſilver catheter was introduced for the purpoſe of drawing off the urine, it overcame the ſlight reſiſtance of this valve, and paſſed into the falſe paſſage; whilſt, on the contrary, an inſtrument of a ſofter texture, a bougie, or catheter made

of

of elaſtic gum, would glide eaſily into the bladder. It is impoſſible to ſay at what period this preternatural opening was formed; whether it was made by the paſſing of bougies in an early part of life, or whether it was formed at a later period, when the proſtate gland increaſing in bulk, rendered the introduction of the ſilver catheter an operation of difficulty.

The inflammation in the kidnies, the ſtone in the bladder, the ulceration which it had ſeemed to produce, and the conſequent gangrenous ſtate of the parts, manifeſtly explain every circumſtance which attended the final termination of this caſe; whilſt the ſac, connected with the bladder, evidently ſhews the hazard of lithotomy, when the ſtone is not felt at the moment of operation, confirming the practical obſervation of the celebrated Morgagni.

Golden-Square, Oct. 27, 1800.

Explanation of the Plate.

a, The proſtate gland enlarged.

b, Ulceration near the neck of the bladder, on which a ſtone was found ſlightly adhering.

c, The urethra.

d, A bougie paſſed into the preternatural opening in the urethra.

e, A portion of the rectum.

f, The vas deferens.

g, A ſac formed from the bladder.

h, The left ureter, with a ſac, which contained a ſmall calculus.

i, The internal coat of the bladder, in a ſtate nearly gangrenous.

MONTHLY REPORT of DISEASES,

Admitted under the Care of the Physicians of the Finsbury Dispensary, St. John's Square, Clerkenwell.

From September 20 to October 20, 1800.

Continued Fever	60	Dyſpepſia, Gaſtrodynia, and Enterodynia	11
Quotidian	1	Aſthenia	16
Pneumonia	7	Catarrh	5
Small-Pox	1	Pleurodyne	6
Rheumatiſm	15	Cough and Dyſpnœa	11
Cholera	6	Jaundice	2
Diarrhœa	13	Nephralgia	1
Dyſentery	29	Phthiſis Pulmonalis	6
Menorrhagia	5	Hypochondriaſis	2
Amenorrhœa and Chloroſis	10	Scrophula	2
Scirrhus Uteri	2	Prolapſus Ani	1
Hæmorrhois	1	Hectica Senilis	1
Eryſipelas	1	Chronic Eruptions	11
Opthalmia	1	Acute diſeaſes of Infants	12
Cephalæa	3		
Dropſy	9		

The

The cholera has now nearly disappeared, and the diarrhœa and dysentery have been less frequent than in the preceding month; but the latter disease is become more severe, and has assumed a more decided character. The symptomatic fever, however, by which it is generally accompanied, has been very slight, and in some instances scarcely perceptible. In those persons whose viscera have been injured by a course of hard drinking, or by previous attacks of similar complaints in a hot climate, the dysentery proves singularly obstinate, and, if it does not terminate in death, leaves them in an extreme state of debility and emaciation, with a most exquisite tenderness and irritability of the alimentary canal; and it is only by a strict attention to diet and regimen, that they gradually recover a tolerable share of health and strength, which require ever afterwards the greatest care for their preservation. Notwithstanding the prohibition of opium in this disease, by several respectable authors, its daily administration, after the operation of a purgative, so far from producing any bad consequences, seemed to promote the cure, and invariably afforded great ease and comfort to the patient. It is better that it should be combined with ipecacuanha, but this perhaps is of little importance.

The cases of pneumonia were none of them formidable. General blood-letting was not once required. The application of leeches to the thorax, and the repeated use of blisters, with antimonials, calomel, and opiates, proved fully adequate to the cure.

The rheumatism was mostly of the chronic kind. In several afflicted with it, a pill containing one grain of opium, and one of calomel, taken daily for about ten days, was of the most eminent service, after sudorifics, bark, and guaiacum had been administered for a long time without any benefit whatever.

It is seldom that an intermittent fever appears in our list. This disease, which in the time of Sydenham was one of the principal epidemics of London, is now rarely to be met with. When it occurs, it is commonly in labourers who have lately returned from the fenny counties, where they had been engaged in the business of the harvest.

The case of ptyalism, inserted in the catalogue of the last month, being attended with circumstances rather unusual, is perhaps worthy of notice. A man about fifty years of age, of a strong and plethoric constitution, has for these six years past been affected with a preternatural discharge of saliva, to the amount of a pint in the twenty-four hours, and of a very viscid consistence. It takes place chiefly in the morning after rising from bed, when he finds a sense of fullness and uneasiness about his head, which is immediately relieved by the spitting. His health is tolerably good, and the other secretions are natural. There appears to have been no obvious cause of his complaint, but he mentions that he had a very severe fever about six months before he perceived it. He is in the habit of smoaking tobacco, but he has found that the omission of the practice for a considerable time occasions no alteration in the discharge. What is remarkable, he is enabled, by a voluntary effort persisted in for a few days, to reduce the secre-

tion to its natural quantity. At the ſame time, however, he becomes affected with head-ach and giddineſs; his appetite fails him; and the ſtomach and abdomen are painful and much diſtended. Theſe ſymptoms are then relieved by a profuſe diſcharge of blood from the hæmorrhoidal veins. By again encouraging the ſecretion of ſaliva, the hæmorrhoids ceaſe, and he regains his uſual health. He has conſulted a variety of phyſicians and medical practitioners, and has undergone repeated courſes of medicine for the alleviation of his complaint.—Purgatives, ſudorifics, tonics, diuretics, mercurials, iſſues, and a vegetable diet have all been tried in vain. Blood letting to the amount of ten ounces puts a ſtop to the diſcharge for ſix weeks or two months, without his experiencing the above mentioned morbid ſymptoms. But as the repeated loſs of blood muſt neceſſarily weaken him much more than the increaſed ſecretion of ſaliva, it is ſurely a remedy more to be dreaded than the diſeaſe.

Although the continued fevers in the laſt month have exceeded thoſe in the preceding by a ſmall number only, we are concerned to ſtate that the proportion of mortal caſes has very conſiderably increaſed. There has not appeared, however, any additional violence or malignity in the ſymptoms; in almoſt all the inſtances of fatal termination, the patients died at a very extended period of the diſeaſe, their ſtrength being rather gradually exhauſted by its duration than overpowered by its force. One young perſon expired at the end of the ſixth week in ſuch an extreme ſtate of emaciation, that, on an inſpection of the corpſe, one would have ſuppoſed her to have been the victim of the moſt lingering conſumption. About the end of the third week, a complete jaundice took place; but it had almoſt entirely diſappeared before her death. The febrile heat ſubſided at the beginning of the fourth week; the pulſe alſo became leſs quick, and did not regain its former rapidity till a day or two before ſhe died. It happens perhaps more commonly than is imagined, that in theſe fevers the heat of the ſkin is not raiſed above the natural ſtandard. In one inſtance of this kind, which occurred to the writer of this article, the pulſe beat only ſeventy-two ſtrokes in a minute: thus the two circumſtances which have been generally regarded as the moſt eſſential characteriſtic of the preſence of fever were entirely wanting.

The contagion from which theſe fevers originate is conſtantly generated and preſerved in the dirty crowded dwellings of the poor. Several circumſtances, but principally certain ſtates of the air, favour its formation and extenſion, and influence its activity and virulence. During the laſt twelve months, indeed, there has unfortunately exiſted a cauſe much more powerful in promoting the operation of contagion on the lower claſs, than any properties of the atmoſphere—a lamentable deficiency of the common articles of nouriſhment. To this, which of itſelf is well known to be a principal pre-diſpoſing cauſe of the typhus fever, may be added the gloomy and depreſſed ſtate of mind, which parents at leaſt muſt experience, when ſurrounded by a hungry offſpring, they find themſelves unable to ſatiſfy their urgent demands for bread. Hence alſo the recovery of convaleſcents is unuſually ſlow; they are more liable to relapſes, and often ſink into many

lingering diforders, of which debility is the principal caufe and fymptom.

The loathfome circumftances attending the crowded habitations of the poor in large cities, and their abfurd and deftructive methods of domeftic economy, which prove a never failing fource of febrile contagion; their extreme mifery and fuffering when once a fever has taken poffeffion of their families, and the dreadful ravages it occafions among them, have lately been very accurately and pathetically defcribed by three phyficians, whofe profeffional avocations have, for a number of years, led them to be extenfively acquainted with the condition and difeafes of the poor in the metropolis, and in the populous towns of Manchefter and Liverpool, and whofe humanity and benevolence render them not lefs an honour to their race than their learning and medical fkill to their profeffion.*

In confequence of the forcible reprefentations of Dr. Ferriar of Manchefter, feveral refpectable gentleman of that town formed themfelves into a board of health, and opened a fubfcription for the fitting up an hofpital or houfe of recovery, for the reception of the poor, ill of contagious fever. Into this houfe the patients are removed as early as poffible. Their inffected garments are taken off, to be purified and reftored to them on their difmiffal; their perfons are made clean by lukewarm water; they are put into ventilated wards, where they have the advantage of medical attendance, medicines, and nurfing. In the mean time meafures are taken to deftroy the contagion in the habitations they have left. By whitewafhing, ventilation, foap and water, flaked lime, and the vapour of the nitric acid, their tainted apartments are completely purified and made fit to receive their now wholefome tenants with fafety.—The advantages which have refulted from this admirable inftitution have exceeded the moft fanguine hopes of its benevolent founders. In feveral of the ftreets of Manchefter, where the fever was wont to rage in its moft deftructive form, it is now nearly annihilated.

We are happy to hear that fome public-fpirited individuals have it in contemplation to attempt the eftablifhment of fimilar inftitutions in this metropolis. Every medical man, who is in the habit of vifiting the fick poor, muft give his teftimony for the neceffity of fuch a plan; and when the inhabitants in general fhall be made fully acquainted with the alarming magnitude of the evil, and the eafy and effectual means of greatly diminifhing, if not of abfolutely removing it, we have good reafon to hope that the noble fpirit of charity, by which they are diftinguifhed throughout Europe, will not long delay to accomplifh an object more important, and fraught with more ufeful confequences to the community, than any which for a long time paft has engaged the attention of the benevolent.

W. W.
J. R.

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* See Dr. Ferriar's Med. Hiftories and Reflections, Vols. 1, 2, and 3; Dr. Currie's Med. Reports on Fever, &c. and Dr. Willan's Account of Difeafes in London in our Journal for April, 1800.

Historical Sketch of the Use of the Affusion of Cold Water.

By HENRY REEVE, Student.

" In quibus explicandis non dubitabo auctoritate antiquorum virorum uti, maximèque Hippocratis, cùm recentiores quoque medici, quamvis quædam in curationibus mutarint, tamen hæc illum optimè præsagisse fateantur."

CELSUS.

FROM the writings of learned men, and the most authentic historical records, it appears, that no nation, however barbarous and uncivilized, has yet been discovered totally unacquainted with diseases and the knowledge of remedies. The various circumstances that might lead to the discovery of medicinal virtues and powers, are with difficulty ascertained; but the learned Dr. Cullen has suggested, that the rude and ignorant must have been directed to the invention of remedies by the instincts arising in certain diseases, by accidental observation, or by random trials, to which pain and uneasiness often lead. It seems probable, therefore, that cold water has been in the list of remedies among all nations from the earliest ages. The use of water as a common drink, and its being so well adapted by Nature for the various purposes of the animal œconomy, must soon have attracted attention for the cure of diseases; and as bathing has been universally practised, experience has proved that the external use of it is no less beneficial and safe.

If we look into the old writers on physic, we shall find that cold water has been recommended and employed in fevers in the most ancient times: And it might have been expected, from its well-known properties and good effects, that the use of it would have continued, and have been brought into general practice; but it has sometimes been highly extolled, and at another time almost totally neglected, which must be imputed to practitioners in physic searching after more compound remedies, and therefore despising the simplicity of water; and moreover, to their observing it prove very useful in some instances, yet attended with pernicious consequences from misapplication in other cases.

These trifling observations were occasioned by reading the following remark in a late classical and ingenious publication " On the Effects of Water in Fevers and other Disorders," by Dr. Currie. After enumerating the effects and advantages of the affusion of cold and warm water, in chap. x. p. 75, the Doctor goes on to say: " The practice of giving cold water as a drink in fevers, was common among the ancients; and immersion

immerſion in cold water they occaſionally employed, but the *affuſion of it* on the ſurface of the body ſeems to have been *wholly unknown.* Ablution of the ſurface with cold water was firſt practiſed in modern times at Breſlaw, in Sileſia, as appears from a diſſertation, by I. G. de Hahn, under the title of Epidemia verna quæ Wrateſlaviam, Anno 1737, afflixit."

It would be needleſs to cite the numerous inſtances that might be adduced of the uſe of cold water in fevers, inflammations, &c. from the oldeſt authors; and as the external uſe of it, in the way of ablution and affuſion, ſeems to have been doubted, and not generally known, I ſhall humbly attempt to prove that it was both known and practiſed long before the epidemic in Sileſia.

The firſt author who notices the uſe of water in diſeaſes, together with almoſt every thing important to the ſcience of medicine, is Hippocrates, who appears to have been a ſtrenuous advocate for the uſe of it, both as an internal and external remedy. It may be remarked, however, that Hippocrates in his account of epidemics, which is wholly employed in treating upon fevers, delivers the particular hiſtory of the diſeaſe, and rarely mentions the remedies. We are therefore not able confidently to decide, whether he always uſed the cold affuſion in caſes of fever; although we may conclude that it was not neglected or diſregarded by him, ſince we find in Caſe 7, book 1, the patient drank largely of cold water, and had it poured upon his head, which moderated the delirium, and he became rational and recovered, having at the ſame time a critical hæmorrhage from the noſe. Sir John Floyer, in his Pſychroluſia, or Hiſtory of Cold Bathing, has obſerved, that Hippocrates deſcribes, in his Aphoriſms, the virtues of hot and cold water, without mentioning affuſions, fomentations, or baths; but the το ψυχρὸν or το θερμὸν, relate to all of them equally. The term uſed by Hippocrates is κατάκλυσμος or καταχυσις, which ſignifies perfuſion, or affuſion, and was performed by a ſervant, who poured the water upon thoſe perſons who were recommended to try its effects in various diſeaſes; and the ſame virtues are aſcribed by him to this method as to cold baths. If the internal uſe of cold water was only known to Hippocrates, he would not have given directions about affuſions, lotions, and fomentations, as he has done in his tracts upon the uſe of liquids, and upon the diet in acute diſeaſes; and eſpecially as the latter part of the tract De liquidorum uſu, is entirely upon the effects of καταχυσις, or affuſion. Beſides, it ſeems probable that he was well acquainted with the neceſſary cautions to be attended to in applying the affuſion, ſince, to ſupply the deficiency of thermometrical obſervations, he adviſes the ſkin of the patient,

or

or of the person who pours on the water, to be the criterion of the degree of cold or heat; and he cautions against proceeding to any great excess, which might prove injurious. In the cure of typhus he advises to refrain from immersion for the first few days, but recommends cloths wetted with cold water to be applied where the patient complains most of heat; which method answers to the "lavatio frigida," as practised by Dr. Gregory at Edinburgh. Hippocrates, after mentioning the advantages of drinking and bathing in cold water, observes that it produces more powerful effects by affusion, δυνατωτερον καταχειν; and as he has studiously avoided the appearance of empiricism by combining reasoning with events, he thought the cold water produced heat and sweat, and that the heat cured the diseases for which the use of water was most effectual.

Although Asclepiades, Celsus, Galen, and many other old authors, have noticed the use of cold water, it does not appear that they generally understood the affusion of it upon the surface of the body, or that such a mode of applying it was in great repute among them. Yet we find Aretæus, in his chapter De curatione Phreniticorum, advises the liberal affusion of cold water upon the patient; and Galen also practised ablution in ardent fevers; and in Lib. x. de Methodo Medendi, he has laid down rules for the proper application of it. And other writers have recommended in vertigo and inveterate head-achs, "ut caput frigidâ aquâ perfundant." The antiquity of the external application of cold water may perhaps be further illustrated by the relation of Augustus Cæsar's case, as mentioned in his life by Suetonius: "Cum etiam distillationibus jecinore vitiato ad desperationem redactus, contrariam et ancipitem rationem medendi necessario subiit, quia calida fomenta non proderant, frigidis curari coactus, auctore Antoniâ Musâ."—Sueton. lib. ii.

History informs us that the American Indians have always practised cold immersion for the cure of fevers, to which they are particularly subject; nor is this practice confined to warm climates, since the northern nations make use of that custom both for the prevention and cure of diseases. The affusion and ablution of the body might first take its origin from the custom of purifying the body with water, in great esteem among the patriarchs, and imitated from them by the Egyptians, Greeks, and Romans; and the use of it, probably, became more general at the introduction of Christianity, when the ceremony of baptism was universally practised by what was called the trine immersion, or by placing the persons in the font and pouring water on their heads and bodies three times. In a work published about the beginning of the present century, entitled

Psychrolusia, or History of Cold Bathing, by Sir John Floyer and Dr. Baynard, the use of cold water applied to the surface of the body is much recommended and insisted upon for the cure of almost all diseases; and although that book partakes too much of what would justly be called medical enthusiasm, yet it contains many important facts and useful observations. It seems rather remarkable that Dr. Currie should not have referred to this book among others which he has noticed, since it would have furnished some striking facts of no small consequence to his ingenious theory and judicious practice. Dr. Baynard mentions many cases of persons who have leaped into a pond, or any other water, in their delirium from fevers, and not one ever received any harm, but were thereby presently cured. And he adduces instances of maniacal persons being plunged into cold water, and having ten or twelve pails of water thrown over them during the paroxysm of insanity; and refers to a remarkable case related by Dr. Willis, in his Chapter de Delirio & Phrenitide, where the same means were used with equally good success. No other work of importance, concerning the application of cold water to the human body, appeared till the year 1785, when an ingenious essay was published by Mr. Rigby, of Norwich, "On the Theory and Production of Animal Heat, and its Application in the Treatment of Diseases. As far as relates to the simple abstraction of heat from the surface, the Author of that Essay seems to have said as much as has been since repeated by Dr. Currie and others; and the observations it contains upon the treatment of cutaneous diseases, (especially small-pox, scarlatina, and measles, and local inflammations) are valuable, and deservedly claim attention. Hence it appears, that the external use of cold water has been known and practised from the earliest periods down to the present time; and this practice has not arisen as the mere suggestion of hypothesis, or the product of speculative inquiry, but has been established and confirmed by long experience. Yet, after all that can be found in ancient authors upon the affusion in fevers and other diseases, it will be readily acknowledged that their practice was unconfirmed, and the conclusions drawn from their experience were vague and uncertain. And it will be as readily acknowledged, that we are greatly indebted to Dr. Currie, who, by a diligent investigation, conducted with judgment and accuracy, has corrected the errors and supplied the defects of preceding writers, and has been a valuable agent in establishing the use of a remedy in the art of medicine, endued with the most efficacious properties, and admirably calculated to produce the greatest benefit to all mankind.

Edinburgh, Oct. 15, 1800.

To

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IT affords me the greatest satisfaction, that I have it in my power to corroborate the testimony of a respectable practitioner, relative to the highly antiputrescent properties of the flos cerivisiæ, which in no case has appeared more conspicuous than in the following:—

The son of W. M. of this town, ætat. 14, was attacked on the 10th of July, 1800, with the usual symptoms of Typhus, attended with violent pain in the head, and a fixed pain in the abdomen. Judging the case to be highly dangerous, I ordered him a strong decoction of bark, with powder, &c. and aromatics; a free use of Port wine; and directed that every thing he drank should be made sour with with the acidum vitriolicum aromaticum. 11th, Still continues exceeding ill; pulse quick and small; applied the thermometer, which immediately rose to 100; skin very dry and the mouth and fauces furred and black. I saw him again the same evening, when he was highly delirious, nor had the quantity of bark he had taken any effect in counteracting the putrid diathesis: the pain in the stomach still continued; and the fæces were regularly discharged, but quite black and offensive. Applicet. emplast. canth. dorso. 12th, The fever still continues with little alteration; he is quite comatose this morning; no tendency to perspiration, but skin quite dry. Having perused an account in your excellent Journal, of the utility of bathing the patient during the hot fit, I determined to give it a trial, and also to lay aside the bark; and as the case appeared to me a lost one, rely wholly on this method and a liberal use of yeast. The very idea of applying cold water during the febrile heat, appears to an unenlightened mind very dangerous; and the father of the patient being a poor man, and uninformed, I found some difficulty in procuring his consent; nevertheless, having represented to him the imminent danger of the case, and assuring him it had been repeatedly practised with success, he acquiesced in my advice, and determined to put it in immediate execution. The method recommended by Dr. George Moffman, I conceived to be the best, and accordingly I sponged him all over with cold vinegar, and directed the free use of yeast and wine. He was sponged again at night, and I saw him soon afterwards evidently better, his pulse being regular and body cool: He had a good night's rest; and on applying the thermometer next morning, it was at 80. Finding such a beneficial effect, and in so short a time, I desired that the yeast (the dose of which was a large

spoonful

ſpoonful ſix or eight times a day) and the uſe of the vinegar might by no means be omitted. From this period he became evidently better; in two days after the yeaſt was diſcontinued: the quantity he had taken was about a pint, and he had been ſponged four times.

On conſideration of the wonderful change which ſo rapidly ſucceeded the adminiſtration of the yeaſt, I cannot but imagine it to be the beſt remedy in putrid fevers ever yet diſcovered. It is well known to ſea-faring men, that if meat, after having become putrid, is immerſed in yeaſt, or only covered with it for the ſpace of thirty-ſix hours, it becomes as freſh and as good as ever. This intelligence I had from an officer in the navy, who had tried it many times. It may be urged in reply, that however potent a medicine may be when applied externally, it has not the ſame effect internally taken; this has been proved in the analyſis of lithontriptic remedies. Have not mercurial preparations the ſame efficacy (or nearly) in cauſing a ptyaliſm, whether externally applied or internally adminiſtered? Why is relief expected from the emplaſtrum aſafœtidæ, but that the antiſpaſmodic properties of the aſafœtida are taken by the abſorbents into the ſyſtem?

With reſpect to the efficacy of cold bathing, (or ſponging, which is nearly ſimilar) it is too well known to need any comment; nor are its valuable properties by any means confined to one particular complaint. I have witneſſed its good effects in phthiſis, when every other remedy had failed; by bathing the cheſt morning and evening with cold water, it has leſſened the frequency of the cough, kept the tongue moiſt, and the patient has experienced from its uſe the moſt grateful ſenſations. Perhaps I may be too ſanguine in my expectations, I may too fondly cheriſh the idea; but it is ſtill impreſſed on my mind, that if the generality of medical practitioners would give it a few trials, it will be found a moſt valuable remedy. It is not from one or two inſtances that I wiſh any one to form even an opinion, for certainly no deciſion can be made: But particularly among the lower claſſes of people in country villages, where medical aid cannot be immediately obtained, it would be an act of charity if the clergyman, or any conſiderate inhabitant, would ſee it duly adminiſtered; and I am confident they would reap that heart-felt ſatisfaction which is ever the attendant on humanity. I have the honour to be,

GENTLEMEN,

Your humble ſervant,

Winſlow, July 26, 1800. I. H. GROSE.

P. S. It has been urged againſt the uſe of yeaſt, that it is violently purgative; this is what I never ſaw, but, on the contrary, it had always the effect of a cordial.

To the Editors of the Medical and Physical Journal.

Gentlemen,

If the following Case and Observations upon Polydipsia are thought interesting to your readers, or suited to afford Dr. Dyce a few hints upon the treatment of this affection, they are at your service.

J. F. a man aged about 45 years, of a dark complexion, well boned and muscular, but not inclined to corpulency, has been affected for two months with violent thirst, which has never had any remission since he was first affected with it. In the night time, he says, that his thirst is very great, and that he puts down a large decanter, containing one Scots pint of water, at his bedside, which is not sufficient for him during the night. In the twenty-four hours he will drink more than two gallons. He says that he has no other complaint but thirst, except that he is generally costive. His appetite is much impaired, and he has seldom a desire for food; he sweats profusely during the night and towards morning, and is often obliged to change his linen. Sometimes the quantity of water which he drinks makes his belly feel full, hard, and painful. He sleeps pretty well some nights, but is often obliged to rise early in the morning, on account of the thirst and sweating. Since he has been affected with this complaint he is more dejected in his spirits than formerly, and has not the same desire for working; this, he says, is owing to his strength being somewhat diminished. He secretes a large quantity of urine, and voids it without pain; it has much the appearance of the urine of diabetic patients. His pulse is about 90 in the minute. Three years since he conducted a distillery of whisky, and was then liable to be affected with great and sudden changes from heat to cold alternately. After the high duties were laid on, he gave up the distilling business and took himself to farming, which is his present employment. He was married and had several children; his wife died about a year and a half since, and within this last six months he has married a young woman. When I considered this patient's former course of life, and the state of matrimony which he had lately entered into, I concluded that the cause of the thirst was debility. I once saw a case of a gouty patient who was affected with a very violent thirst instead of a paroxysm of the gout; it yielded to nearly the same treatment as was employed for this patient. With the intention of removing the debility, and restoring the system to its former degree of strength, I had recourse to tonics. Considering the

cortex

cortex to be among the chief of this kind of medicines, I prescribed it as follows:

Take of fine powder of Peruvian bark, one ounce; sulphat of zinc, half a drachm; mix them accurately together, and divide into sixteen doses; one to be taken four times every day in a glass full of wine.

I ordered porter for his common drink, and a nourishing diet. After using the bark for four days he complained of costiveness; I ordered him one ounce of castor oil, which operated very well. To palliate the uneasy thirst, I prescribed the tamarind decoction. After he had used these medicines for eight days he found his thirst much diminished. He is now taking an opiate every night, and fifteen drops of the acid elixir of vitriol in a glass full of water, three or four times every day; and a dose of castor oil every seven days, which, he says, relieves the uneasiness and hardness of his belly very much. By persisting in this course for four weeks his thirst was almost gone. To perfect the cure, I prescribed for him a journey into the country, that he might have the advantage of a change of air, and drink Chalybeate water; but he could not get time spared for the purpose, and, as he was better, he continued at his usual employment at home.

Aberdeen, Aug. 3, 1800. TUAAM PEAAL.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THROUGH the channel of your valuable Publication many important discoveries and improvements, in the practice of medicine and surgery, are daily communicated to the medical world, from which, without doubt, the public will derive the greatest benefit; and it must afford infinite satisfaction to every individual who contributes his mite towards the general fund of information, to find his endeavours thus powerfully seconded by so rapid and extensive a circulation as that of this work, which has been so long wanted.

To the old practitioner it will impart an increase of knowledge, to the young one it will give a *zest* for medical investigation; which, for want of a more general mode of communication than by private correspondence, was not sought after with the ardour its importance merits. Hence the utility of Medical Societies, where theories are brought face to face, and stand or fall as they are supported by

by the vivid colours of truth, or wear the gloomy aſpect of hypothetical reaſoning. By the aid, however, of the Medical Journal, one general ſociety of the medical world is formed, affording to each member an opportunity of offering his opinion; which, to avoid giving offence to the whole, ought to be given with accuracy and candour, and judging others diſpaſſionately; medical controverſy, and warmth of temper, will not advance the ſcience, but will lower the individuals in the opinion of a diſcerning public.

Among the numerous advantages to be expected from this periodical work, is to be reckoned one, not of the leaſt importance; to wit, the extinction of prejudice amongſt perſons in higher ſituations of life, who are not of the faculty; for it is an incontrovertible truth, that new diſcoveries not unfrequently meet with more difficulties from the want of the ſanction of gentlemen of rank and fortune, than from the forbearance of medical authority. Thus, at this preſent moment, we meet with a powerful oppoſition to the general introduction of the Vaccine Pox, and to the application of Digitalis Purpurea in pulmonic affections: Does not the frequent fatality of the natural Small-pox, in this and every other country, juſtify an attempt to eradicate a diſorder that is deſervedly held in horror? And, however mild the inoculated Small-pox may be, it cannot, I think, afford any *favourable* argument againſt the Vaccine, which appears, almoſt beyond a doubt, to have exempted from the Variolous thoſe who have undergone the former; and, beſides, poſſeſſes ſo many advantages which the latter cannot boaſt of.

And do not the very few inſtances recorded of perſons having recovered from phthiſis pulmonalis, juſtify every rational attempt to defeat the opprobrium medici? I am much inclined to believe that, in the two firſt ſtages of the diſeaſe, the Foxglove has produced wonderful effects, and will hope that by perſeverance and proper management, it may prove efficacious in the laſt ſtage.

A great deal has been ſaid on the ſubject of Quackery; I hope alſo to find a remedy againſt this evil in your very uſeful Journal.

In Ruſſia, where I was in regular practice during the ſpace of ſeven years, no one is allowed to viſit the ſick who has not been previouſly examined at the College of Phyſicians, under the following pains, viz. If he be a native, he is liable to be ſent into Siberia, and to have his property confiſcated; if a foreigner, to be ſent out of the empire. On the other hand, if any one be admitted by the College, notice is given through the medium of the St. Peterſburgh and Moſcow Gazettes, that the

the Faculty of Medicine find N. N. qualified to exercise his skill as Physician, Surgeon, or Accoucheur.

And when a medical gentleman writes a prescription, he is obliged to subjoin his name at full length; and the apothecaries (who dispense medicines only) in like manner add their own and the prescriber's name to the label, with the date of the prescription.

If corrosive sublimate, or any other deleterious drug, be prescribed, the medical gentleman is obliged himself to explain to the apothecary for what uses it is intended.

A few years ago the great importation of British quack medicines into Russia, caused the apothecaries to present a memorial to the College of Physicians, praying that the sale of them might be prohibited, and they were accordingly prohibited at St. Petersburgh; but, I believe, that in other places little attention was paid to the edict.

Although all the laws above mentioned were not put into execution, and though some of them, and others which I have not noticed, appear severe, yet, as a great national concern, I think some measures ought to be adopted in this country to prohibit Quackery, as it is an evil that is daily increasing amongst us, and it is not uncommon on the Continent to hear the English nation called "a country of Quacks and Dupes."

In the course of the ensuing month I shall transmit, for your approbation, some Medical Cases and Observations. I remain,

GENTLEMEN,

With great respect,

Your obedient servant,

Durham,
Sept. 29, 1800.

GEO. CAYLEY, M. D.

Citizen CHAUSSIER, *on Amputation.*

IN the Philomathic Society of Paris, Cit. Chaussier has read a Memoir, containing Experiments on the Amputation of the articulating Extremities of the cylindrical Bones.

As this Memoir contains some interesting anatomical and physiological facts, we shall present our readers with some of the particulars. Several surgeons of eminence, both in England and France, have proposed and occasionally practised an excision of the articulating processes in diseases of the larger joints, instead of amputating the whole limb, and this practice has sometimes preserved to the patient, a limb which has afterwards become of considerable use. It was in order to determine

mine the practicability of this operation, that M. Chaussier has made several experiments upon animals, of which the following are the results:

Having laid bare by incision the upper extremity of the femur, he turned the head of the bone out of its articulation, and sawed it off, some way below the trochanter; so as to take away an eighth, a sixth, and sometimes a fourth of the whole length of the bone. He then brought together the muscles and skin, secured their union by a few sutures, and left the rest to Nature. The wounds always closed without suppuration, or any apparent exfoliation of the bone, and the cicatrix was compleatly formed at the tenth, or, at latest, the fifteenth day. In a month's time the animal began to make some use of the paws of the limb operated upon.

By examining at different periods the parts that had suffered the operation, it was found that the muscles had, by their contraction, forced the upper part of the femur upon one of the projecting points of the ischium; that the amputated extremity was rounded off, and covered with a cartilaginous substance; that the part of the ischium upon which it had been thrown, had also assumed a cartilaginous appearance, and sometimes formed an articular *fossa*, more or less deep; that the cellular substance around this new articulation, produced a kind of capsular membrane which contained a serous liquor; and the acetabalum gradually became filled up with cellular substance.

In order to ascertain what changes suppuration would produce in this process, the experiment was repeated upon a dog; but instead of promoting the union of parts by the first intention, the wound was irritated in several ways, and suppuration brought on.

The animal suffered much, and several abscesses were formed, which opened successively. However, after two months he was compleatly cured, and retained a very good use of the foot, After four years the parts were examined, and it was found that the extremity of the femur was attached to the ischium by a ligamento-cartilaginous substance, which fixed it upon this bone, and allowed of free motion in every direction. There was also formed at the extremity of the femur an apophysis, which gave attachment to the different muscles, and served instead of a trochanter.

The same operation, performed on the upper extremity of the humerus, had the same success, and gave very nearly the same results.

M. Chaussier repeated these experiments on the *lower* extremity of the femur, the cubital joint of the humerus, and the lower part of the tibia; and he even, in some cases, took away the

the whole knee and elbow joints of different animals; but though none of them died, the operation never succeeded: The soft as well as the hard parts healed up well; but instead of forming a new articulation, the extremities of the upper and lower bones receded from each other, and the part below the articulation remained loose and pendulous, and entirely useless to the animal. These operations on ginglymus joints are, besides, very difficult to perform, and attended with much hazard on account of the arterial ramifications; and could promise no success in real practice, on account of not being surrounded and covered with any great quantity of flesh.

At the conclusion of this Memoir, M. Chaussier mentioned a curious case of a young man, with whom the upper extremity of the humerus separated spontaneously, after a caries of the bone and tedious ulceration, which had at last been cured by the efforts of Nature. A new and very remarkable articulation had been formed in this case. The scapula sent out a rounded protuberance like the head of a bone, and the humerus had a corresponding cavity which received it, and thus allowed the patient almost every use of his arm, as in its natural state.

To the Editors of the Medical and Physical Journal.

Gentlemen,

If you think the following remarks on the inveterate species of Ulcer, which has lately been so destructive in his Majesty's ships, worthy a place in your valuable Journal, the inserting it will confer a favour on,

Gentlemen,

Your very humble servant,

JOHN BALLARD, Surgeon, Royal Navy.

Portsmouth, August 12, 1800.

I entered into the navy in March, 1798, with an appointment to his Majesty's ship Triumph, then commanded by Captain William Essington; on entering on my professional duty, I was struck with the appearance of the ulcers, which had been for some time under the care of my predecessors; they were very different from the appearance of any ulcers I had ever seen before, either in private practice, or during my attendance at the General Hospital near Birmingham; I was therefore resolved

ſolved to pay very peculiar attention to them, and obſerve their progreſs, for I really predicted in my own mind, that we ſhould have ſome trouble in the management of them. I collected what information I could reſpecting them from my profeſſional friends on board, and was informed, that a man with a very ill-conditioned ulcer had been received on board the Triumph from the guard-ſhip at Spithead, and from the date of his introduction into the ſhip, they had obſerved ſome alteration in the complexion of the ſores; but it did not ſeem to be ſo apparent to them as to me, who had ſo lately come from the ſhore; I did not, however, loſe ſight of my own opinion; it is true, two or three caſes healed firmly, but notwithſtanding, we could eaſily perceive, that every ſucceſſive caſe became more and more inveterate.—The Triumph ſailed with Lord Bridport on the 12th of April, 1798, with ſeveral bad caſes of ulcers in the liſt of ſick; we returned to Torbay about a month afterwards, with a conſiderable increaſe of theſe caſes; in ſhort, the ſituation appropriated for the reception of the ſick on board of a ſhip, was completely filled. Dr. Trotter, the phyſician to the fleet, was applied to, and ſome of the worſt caſes were ſent on ſhore; ſtill, too many were retained. We did not remain long at Torbay; and the Triumph's next cruiſe was not leſs than three months, during which time we were ſadly haraſſed with increaſing numbers of theſe deſperate caſes. Mr. Thomas Moffatt, the judicious ſurgeon of the Triumph, uſed every exertion to overcome this deſtructive complaint, and every external means that afforded even a gleam of hope was tried; the fumes of nitric acid were uſed three weeks with unremitting attention, but without any permanent advantage reſulting, and it was relinquiſhed on that account. The Triumph returned to Plymouth with a great number of theſe ulcers, and the greater part of them was ſent to the Naval Hoſpital there.

To a cruiſe on the coaſt of Ireland theſe baneful attendants followed us, now accompanied with alarming fever, which did not appear before, requiring the moſt active remedies of inflammation, which generally terminated it in three or four days, leaving the patient exceſſively reduced. Opium was then uſed with great advantage, by ſuſpending the irritation occaſioned by the continual abſorption of putreſcent particles into the ſyſtem. I am indebted to a very reſpectable phyſician in Birmingham, for an idea reſpecting the nature of the fever and inflammation attending theſe caſes; and he calls the fever a ſpecies of typhus, and the inflammation a ſpecies of eryſipelas, which accord perfectly with my ideas. I ſhould not have ventured to give this account to the public, for I am a very young ſurgeon;

ſurgeon; but I am actuated by very ſeducing motives; 1ſt. In juſtice to my worthy and much eſteemed preceptor from whom I received the firſt and the only rudiments of my profeſſion I at preſent poſſeſs, and partly on account of ſome information I have received ſince my return from the Weſt Indies, from a very reſpectable practitioner in the navy, that theſe ulcers are ſtill in exiſtence; and having myſelf been an actual obſerver of their deſtructive influence, I cannot, in conſcience, withold what I think the only means of eradicating them from the navy. The practitioner above alluded to, has told me, that his ſhip was free from any ſuch caſes, "till the introduction of ſome bad ones from a ſhip in the Channel ſervice, and in vain did he endeavour to eradicate them by external means. Thus circumſtanced, he reſolved to ſend every caſe, however ſlight, out of the ſhip, and totally deſtroy every thing that had been uſed in dreſſing them," viz. ſponge, lint, &c. and it is very pleaſing for me to remark, that this practice was attended with the happieſt effect: I have the teſtimony of himſelf, and my own actual obſervation, that he has not, at preſent, one ſolitary caſe of bad ulcer under his care. From theſe evidences, I moſt ſincerely recommend a ſimilar mode of proceeding in every ſhip in his Majeſty's ſervice, in which theſe caſes exiſt, for I am convinced that no other *means will be effectual in baniſhing them from the Navy.*

To the Editors of the Medical and Phyſical Journal.

Gentlemen,

FOR ſeveral years I have been diſſatiſfied with the general and indiſcriminate uſe of Calomel in the diſeaſes of children; I am not more certain of any one fact that pertains to medicine, than that I have ſeen many children who have fallen a ſacrifice to the improper application of this medicine. Calomel when mixed with ſugar, forms a medicine agreeable to the palate of the child; its exhibition is eaſy to the mother or nurſe, and it may with ſafety be given as a purge, when a purge is indicated. When given as a purge, its action is confined to the firſt paſſages, but when the doſe is frequently repeated, either for the purpoſe of obviating habitual coſtiveneſs, or with any other intention, it is abſorbed by the lymphatics, and enters the ſyſtem, by the action of which it is decompoſed. The oxygene diſengaged from the mercury, forms a powerful ſtimulus to the ſyſtem, increaſing the action of all its irritable fibres: the

the action of the ſyſtem thus increaſed, produces an increaſed decompoſition of the oxygene gas abſorbed by the lungs; this decompoſition is attended with an increaſe of animal heat, which, in its turn, acts as an additional ſtimulus, and that ſtate of the ſyſtem is produced, which is called the *mercurial fever*; this fever, in adults, ſoon runs into indirect debility. Although mercury does not appear to have ſo powerful an action on the ſalivary glands of children as it has on adults, yet, I apprehend its general effects upon the ſyſtem are greater.

The irritability of an infant is to that of a perſon in middle age as 2 to 1: the pulſe of the latter is from 60 to 80 ſtrokes in a minute; the former from 120 to 140. The increaſe of excitation produced on the fibres of an infant by an increaſe of ſtimulus, will be double the excitation produced on the fibres of an adult from the ſame increaſe of ſtimulus, and the increaſe of indirect debility will be in the ſame proportion.

The injurious conſequences likely to flow to children from the high degree of excitation, and extreme ſucceeding debility produced by a mercurial courſe, I wiſh to impreſs upon your readers. Mercury has been erroneouſly held forth as a ſpecific in hydrocephalus, and is often given as a preventive of that fatal malady: Hydrocephalus appears to be the reſult of debility ſucceeding too high an action of the veſſels in the brain. If ſo, can any medicine more powerfully produce hydrocephalus than mercurial calces? I am, Gentlemen,

Your very humble ſervant,

WILLIAM CARSON, M.D.*
Practitioner in Midwifery.

Birmingham,
July 21, 1800.

To the Editors of the Medical and Phyſical Journal.

Gentlemen,

SHOULD you think the following mode of treating the reſiduum of vinegar, in the proceſs Acetum Diſtillatum of the Edinb. College, merits a place in the Journal, pleaſe to inſert it.

Edinburgh, Aug. 13, 1800. B. B. SIMONS, M.D.

The College orders "eight pounds of vinegar to be diſtilled in glaſs veſſels with a gentle heat; let the two firſt pounds that

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* Dr. Carſon will ſoon preſent the public with a work on the *Treatment of Parturient Females, chiefly with a view to prevent abortion.*

that come over be thrown away, as containing too much water; let the four pounds next following be reſerved as the diſtilled vinegar. What remains is a ſtill ſtronger acid, but being too much burnt is unfit for uſe." Some chemiſts, rather than throw away the reſiduum, add either the water that firſt paſſes over, containing a ſmall quantity of vinegar, or a portion of freſh, and diſtil. The vinegar thus obtained is never free from the empyreuma. Inſtead of adding water, I added about ℥iiij of finely powdered charcoal, previouſly heated and diſtilled to dryneſs, raiſing the heat of the furnace as the proceſs advanced. The reſiduum, thus treated, was entirely deprived of empyreuma, and was thought by a gentleman, who taſted of ſeveral quantities taken from different periods of the proceſs, to be ſuperior in flavour. It is much concentrated, and, when added to the four pounds, is better calculated for pharmaceutical purpoſes. The price of charcoal may ſeem to militate againſt this mode of treating the reſiduum; but it cannot, for if the coal be waſhed, and dried in a tolerably ſtrong heat, the ſame effect will take place when added to the reſiduum of another proceſs. I have not aſcertained the preciſe quantity of coal neceſſary to correct the empyreuma, but, I preſume, a much ſmaller may be employed.

To the Editors of the Medical and Phyſical Journal,

GENTLEMEN,

HAVING frequently met with caſes of Bronchocele, which were given up as incurable by thoſe who had been attending them, but yielded without much difficulty to a ſimple and ſafe remedy, I herewith ſend the formula, which I beg the favour of you to inſert in your Journal.

I am well aware that to medical practitioners in general, burnt ſponge is known to be the baſis of the Coventry remedy, and to have been often given for this complaint; but, nevertheleſs, facts warrant me to affirm, that either the cure of the diſeaſe is not in general well underſtood, or that the means are not employed with due regularity and attention.

I have many times known external ſtimulants, and mercurials, tried in vain; and ſometimes the ſpongia uſta itſelf inwardly given in other forms to no purpoſe; yet in the following manner it has ſucceeded.

℞. Spong. uſt. ℥ij. pul. gum. Arab. ʒij. pul. cinnom. ʒſs. ſyr. ſimpl. q. s. ut fiant trochiſci xxiv.

Care

Care muſt be taken that no more ſyrup be uſed than is abſolutely neceſſary to make the dry ingredients properly cohere; for which reaſon it muſt be added ſlowly, and the maſs muſt be beaten well. The lozenges are to be dried before the fire, on a plate that has been ſlightly oiled, to prevent them from ſticking; and muſt be kept in a bottle, or in a gallipot, tied over with ſkin.

One of them is to be taken twice or three times a day. I have known an inſtance where one was taken twice a day, for a great length of time, to no purpoſe; but when the number was increaſed to three, the good effect was ſoon evident.

Whether this medicine acts locally, and, if it acts locally, whether it is conveyed to the thyroid gland by means of abſorbents not hitherto diſcovered; or whether the thyroid gland is a mucous gland, and is ſtimulated to excretion by the action of this medicine on the neighbouring parts, I ſhall not pretend to determine. Suffice it to ſay, that I have cured a conſiderable number of perſons of the Bronchocele by this remedy, ſome of whom began to ſuffer much, and to be ſeriouſly alarmed, on account of the difficulty of deglutition and reſpiration, with which their complaints were at that time attended.

Burnt Sponge, it is well known, and has long been well known, is the moſt common remedy that is tried for the cure of this diſorder; but I have had frequent opportunities of knowing that it generally fails to effect a cure. This muſt proceed from the difference of the quantity given; or of the mode in which it is given. Some have adminiſtered it in the form of a ſoft bolus, to be diſſolved in the mouth. If its virtue depends, in any degree, upon its topical action, that muſt be very tranſient, unleſs the compoſition be dried.

Some years ago, I ſent a paper on this ſubject for publication to the Editor of a Medical Journal, who expreſſed a wiſh, that, previous to its publication, I would endeavour to aſcertain whether the ſpongia uſta really cures the diſeaſe in a ſhorter ſpace of time, when exhibited in this manner, than when ſwallowed at once.

I have made many attempts to decide this point; but, owing to the obſtinacy and impatience of the perſons who have laboured under the diſorder, and other circumſtances, I have hitherto been baffled in my endeavours. The frequent occurrence of the diſeaſe, and the frequent diſappointments that attend the ordinary modes which are employed for its removal, induce me to think that the publication of this formula may be uſeful, and ought not to be longer delayed.

In theſe troches the doſe of ſpongia uſta is a ſcruple. Some have recommended only that quantity, or perhaps only half a ſcruple, once a day; and that only during a particular period

 of

of the moon. It is no wonder if so small a quantity of the medicine should often fail to produce a cure.

Did not this mode of exhibiting the burnt sponge, in some measure, create disgust, and excite nausea, in many persons of a delicate constitution, such as is generally the lot of those who labour under this complaint, a much larger quantity of the medicine might be prescribed with perfect safety. The late Mr. Webb, of Half-Moon Street, informed me, that he cured a large schirrous tumour of the abdomen, in a patient sixteen years old, by giving a drachm of it four times a day, till a pound was taken.

A kind of lozenge was prepared, and sold as a nostrum, many years ago, by a Frenchman of the name of Barbais; in which I had great reason to believe burnt sponge was a principal ingredient. These lozenges were sold at the enormous price of one guinea per pot; and each pot contained but a moderate quantity of the medicine.

I have seen a considerable number of letters, from various parts of the kingdom, but particularly from Blandford, and that neighbourhood, describing, in the strongest terms, the wonderful cures which had been performed by this remedy. Nevertheless, owing to the indolence of the person who prepared them for Barbais, who was for many years a cripple, and on his own account, after the death of the proprietor, the sale was not so great as it would otherwise have been.

Had the proprietor of this remedy practised the refined arts of a modern quack, he might have emerged from obscurity and have made his fortune; but he never solicited *peers of the realm* to certify more than was true, nor *a bishop* or *a judge* to assure the world, that they were convinced of the singular efficacy of *his nostrum*, from *their own experience*.

He did not open a warehouse in New Bond Street for the sale of his medicine, nor sport his carriage or his country house; nor had he the impudence to affirm, as other empirics have done, that his patients had been given over by eminent physicians, *who had never seen them, nor even heard of their illness*.

When I last saw the person who prepared the medicine before alluded to, knowing that he had derived but little advantage from it of late years, owing to his being in an obscure situation—that of a servant, and that he was of a very indolent disposition, I offered to give him, what I considered a reasonable consideration for his recipe, and if he would part with it on those terms, to make it public; but his demands were so exorbitant, that I could not comply with them. He then lived with Captain Wade, and had lived many years with Colonel Wade,

Wade, to whoſe father, Field Marſhal Wade, the former proprietor had been a ſervant.

Theſe particulars concerning a medicine which merits at leaſt as high encomiums as any noſtrum of the preſent day, will not, I hope, be deemed ſuperfluous. I have great reaſon to believe, that burnt ſponge was the baſis of the compoſition, from the colour and taſte of the lozenges; and from knowing that the perſon who prepared them, frequently purchaſed and calcined a conſiderable quantity of that article.

Having been very ſucceſsful in the cure of the Bronchocele, I have long been anxious to communicate to medical practitioners in general, what I have embraced every opportunity of making known to individuals of the profeſſion; and I ſincerely hope, that by means of your widely circulated Journal, a knowledge of the great efficacy of this mild and ſafe medicine will be more generally diffuſed.

It is proper to add, that in a few caſes, the ſame medicine, given in the form of pills, has cured the complaint; but I have not had it in my power to aſcertain whether it will in general anſwer as well as when it is adminiſtered in the other form. I have the honour to be,

GENTLEMEN,

Your moſt obedient ſervant,

JOHN RING.

New Street, Hanover Square,
October 9, 1800.

To the Editors of the Medical and Phyſical Journal.

GENTLEMEN,

I Have thus far with the greateſt ſatisfaction, peruſed your truly valuable Journal; which ſeems to me to be of intrinſic utility to the medical world, both from the variety of ſubjects it contains, and the perſpicuity and accuracy which every where attends the execution of it. Should you think the following caſe of Amputation worthy to be inſerted in your Publication, I offer it to your ſervices. And am,

GENTLEMEN,

With great reſpect, your's truly,

WILLIAM KNIPE.

Garſtang, Oct. 2, 1800.

JOHN SMITH, aged 15, was afflicted with a number of large unequal tumors upon the left hand, which he ſays origi-

nated about ten years ago. His relations deſcribe their firſt appearance to be ſimilar to a number of warts; theſe have gradually increaſed in point of ſize, which has been very rapid within theſe few laſt years.

The appearance of the hand, on account of its ſize, was very aſtoniſhing. The tumors were ſeveral in number, although ſome of them were connected, forming an unequal appearance. The largeſt occupied the ſubſtance of the hand; ſeveral others, about the ſize of oranges, were ſituated upon different fingers, which laſt were disjointed, the ends of which were placed promiſcuouſly upon the top of the different tumors. A number of very large and diſtended veins were ſeen extended over the ſurface of the hand. The integuments were ulcerated in ſeveral places, and of a dark livid ſhining colour, having much the appearance of ſcrophula. The laſt two months, his health was much impaired; was affected with hectic fever, along with exceſſive perſpiration through the night. His conſtitution was emaciated; probably the hectic might be the effect of abſorption of aërated matter, together with the debility induced by the quantity of blood requiſite for the nouriſhment of ſo large a tumor. From the ſize, ſituation, and general appearance of the whole hand, with the impaired habit of the patient, amputation ſeemed eſſentially neceſſary; removing the tumors by diſſection was utterly impracticable.

The operation was performed on July 23, 1800, about two inches above the wriſt, by the double inciſion. After amputation I examined the hand, the weight of which was five pounds and a half; the circumference of the largeſt tumor was exactly twenty-five inches. The appearances upon diſſection were as follow: Upon removing the integuments, I found that the large tumor took its origin from the articulation between the carpal and metacarpal bones; this ſeemed covered on the upper part by a number of tendinous faſciæ; the whole of the tumors were ſurrounded by a conſiderable thickneſs of bone, which was particularly ſo at their different origins, where a degree of caries oſſium was obſerved. The bones of the fingers, where the tumors began, were likewiſe carious, and their perioſtium was denuded. The four metacarpal bones were completely obliterated, probably by the abſorption of oſſific matter. The internal part of each tumor conſiſted of a matter ſimilar to jelly, quite tranſparent, yet not tenacious. The ſtump healed in a fortnight, by the firſt intention; and the patient had neither ſtarting of the ſtump, nor ſymptomatic fever. I have ſeen him ſeveral times ſince, and find his health and appearance much improved. It may be worth while to notice, that the left foot has been for ſeveral years affected with hard

ſmall

ſmall excreſcences, ſimilar to nodes; theſe, however, remain of a ſtationary ſize. I have ſtated the caſe exactly as it occurred; but being a young practitioner, beg leave to ſuſpend my ideas reſpecting the phyſiological part of ſuch a production, flattering myſelf the ſtatement of the caſe may excite the attention of ſome able phyſiologiſt.

To the Editors of the Medical and Phyſical Journal.

Gentlemen,

A Faithful and unbiaſſed hiſtory of facts, whether favourable or otherwiſe, as they occur in the treatment of every diſeaſe, and an impartial narrative of the action of every new remedy as it appears to affect the living ſyſtem, would tend to elucidate many obſcure points in medicine, and greatly enlarge the ſphere of our knowledge; but it is to be lamented, that in the ardour of a new diſcovery, ſimple alleviation of urgent ſymptoms is too frequently magnified into a perfect cure, and a real or apparently ſucceſsful caſe or two, at once ſtamps the remedy with the character of infallibility. Hence, the frequent diſappointments experienced by others; and hence, the total rejection of a valuable medicine is ſometimes the conſequence of theſe exaggerated and hyperbolic praiſes.

Men are in general fond of the marvelous, and they are anxious to excite it in others; ſelf-love, and a fear of public cenſure, often induce them to conceal the unſucceſsful part of their practice, whilſt they relate with ſtudied care and attention the fortunate caſes only. Not ſatisfied with this diſingenuous concealment, it is much to be feared, that many are to be found in the profeſſion, who detail with circumſtantial minuteneſs, caſes which, probably, never had exiſtence, except in their own imaginations; or, having actually occurred, who warp facts, ſymptoms, and circumſtances, to force a coincidence with ſome adopted opinions, or for the purpoſe of ſupporting ſome preconceived and favourite theory. This weak, and we may juſtly add, criminal conduct, is productive of ſerious evils, as it not only miſleads the credulous and inexperienced practitioner, but tends to render error ſyſtematically permanent.

I have been led into theſe reflections from comparing the ſucceſsful practice of others, in the treatment of Epilepſy, with my own, which to my no ſmall regret and mortification, has hitherto proved uniformly unfavourable. At this I have reaſon to be the more ſurprized, as I had employed preciſely the ſame

ſame remedies which were given with ſuch very diſſimilar reſults by many of your correſpondents; and what adds to the ſingularity of my attempts is, that I puſhed the doſes of medicines beyond all previous example or precedent, ſo far at leaſt as I am acquainted. For inſtance, that of the nitrate of ſilver, mentioned by P. Mudie of Arborth, Dr. Cappe of York, and Dr. Sims, with ſuch commendations. I have adminiſtered it in chronic and recent caſes of epilepſy, to the quantity of twelve grains in a day, without any one perceivable effect; that is, four grains at a doſe given ter in die, having commenced with doſes of half a grain, which were gradually and daily increaſed.

Again, the cupr. ammon. ſo celebrated in the hands of others, has proved like the argent. nitrat. equally inert and unſucceſsful in mine. It was exhibited in ſmall doſes at firſt, and continued till the quantity amounted to twenty-four grains a day; and this increaſed quantity was perſevered in for fifteen days, but without the ſmalleſt advantage or effect.

Eleven epileptic patients, who came under my care nearly about the ſame time, were claſſed and treated in the following order:

Three patients took the argent. nitrat. gr. iv. ter in die.

Two took the cupr. ammon. the largeſt doſe, gr. viij ter die.

Two, pulv. cinchon. ℈iv. cupr. vitriol. gr. iiſs. M. quart. quaq. hor. That is, one ounce of bark, and fifteen grains of the cupr. vitr. daily.

Two took the pulv. valer. ſilv. ʒj. quart. quaq. hor. or one ounce daily.

Two took the arſen. alb. to the quantity of one grain and a half daily.

It is to be recollected, that the active medicines were adminiſtered in very reduced doſes at the commencement, and gradually increaſed till the quantity amounted to what is above ſpecified. One tenth of a grain of arſenic was at firſt exhibited every four hours, and augmented by regular gradation to one fourth of a grain; but beyond this it could not be carried. Half a grain of the cupr. vitriol. given every four hours, was the doſe commenced with, and increaſed to two grains and a half. Neither this or the preceding medicine could be puſhed farther, as the ſtomach became affected; and even the above quantities frequently occaſioned nauſea and vomitings, eſpecially when given on an empty ſtomach, the ſickneſs always recurring in the morning. This plan was perſevered in for ſix weeks, and the reſult was in all uniformly the ſame; that is, no amendment whatever took place.

The

The argent. nitrat. was again tried on a patient lately under my care at the Royal Hoſpital, of which he took ten grains daily, with reſults preciſely ſimilar to thoſe already mentioned. The paroxyſms in four of them obſerved regular periods like intermittents of the tertian and quartan type, and thoſe were ordered the cinchon. cupr. vitriol. arſen. alb. and occaſionally large doſes of opium. The recurrence of paroxyſms in ſix of them, was uſually more frequent and violent during the full and change of the moon; and one man in particular had rarely more than one fit, except at theſe periods, when he was ſure to have a regular daily attack. Two others, who were ſubject to naſal hæmorrhagies and a tempory inflammation of the tunica conjunctiva of the eye, during the attack, had their heads ſhaved, bliſters applied to the ſutures, and leeches to the temples.

I obſerved in theſe patients, and in moſt others who have long laboured under this untoward diſeaſe, a dulneſs of apprehenſion, a particular ſtare and vacuum of countenance, a dilated pupil, and an inability of the iris to contract on the admiſſion of light, accompanied with ſtupor and a general irritability of the muſcular fibre. This torpor extends to the ſtomach and inteſtinal canal, as thoſe people ſubject to the diſorder uſually require the moſt active cathartics and emetics to excite the primæ viæ into action.

I truſt that theſe remarks will not be conſidered as reflecting on the ability or veracity of the reſpectable names already mentioned, nothing is indeed farther from my intention, their characters and talents are too well known to the medical world to need even this explanation; but every practitioner, however ſkilful and enlightened, is at times liable to error, eſpecially when drawing concluſions from premiſes new and imperfectly underſtood. That the timid and feeble practice of theſe gentlemen in the treatment of epilepſy ſhould have been ſucceſsful, whilſt the bold and deciſive, but at the ſame time cautious practice of another, had entirely failed, is indeed to be wondered at; and will induce us to infer, that appearances with reſpect to the effects of the remedy, had, ſome how or other, certainly deceived them; for we cannot ſuppoſe, that medicines which had been exhibited in ſuch large doſes, whoſe uſe had been perſevered in for a length of time, and which not only failed in performing a cure, but proved perfectly inert on every occaſion, ſhould have ſucceeded, when given in ſuch minute and divided portions.

Our knowledge of the cauſes and cure of this frightful malady is, indeed, extremely limited, and little or no dependance can be placed on all the boaſted medicines hitherto diſcovered

vered and recommended for it; but theſe difficulties ought not to ſuſpend the efforts, or deaden the ardour of the humane and enlightened phyſician, they ought rather to ſtimulate him to greater exertions in the purſuit of new remedies, or in differently combining and applying thoſe already known, in order to combat ſucceſsfully a diſeaſe, which muſt at preſent be reckoned in the number of the opprobria medicinæ.

If theſe obſervations be deemed worthy a place in your valuable Journal, they are much at your ſervice.—In my next Communication, I propoſe laying before you the farther reſults of my experiments on the Digitalis Purpurea, in the treatment and cure of Phthiſis Pulmonalis. I am,

Gentlemen,

Your obedient humble ſervant,

J. MAGENNIS, M.D.

Royal Hoſpital, Plymouth,
October 4, 1800.

Additional Case of Croup, successfully treated with Digitalis.

To the Editors of the Medical and Physical Journal,

Gentlemen,

I Had the honour in June laſt, to tranſmit to you two caſes of *Croup*, which I had ſucceſsfully treated with Digitalis, and which you had the goodneſs to inſert in No. XVII. of your uſeful Journal. The end I propoſed to myſelf in ſending them to you, was to call the attention of the profeſſion to the powers which the Digitalis apparently poſſeſſes of arreſting the dangerous ſymptoms of that dreadful diſorder. It doubtleſs has occurred to many gentlemen, as it did to me, to make trial of it, upon the principle of its operating ſo quickly and powerfully upon the arterial ſyſtem, and thereby ſtopping the rapid progreſs of the inflammatory ſymptoms. Conſidering the common fatality of the Croup, and the little command we have over it by the remedies hitherto uſually employed, I cannot but wiſh that the following additional caſe of Croup I now ſend you, may be a means of promoting a trial of the Digitalis. So much has been written by ingenious men on the ſubject of Croup, that it is quite needleſs for me to enter particularly into it. The definition of it given by Dr. Cullen in his Synopſis,

Synopſis, is ſo truly characteriſtic, that it is ſcarcely poſſible for any perſon to miſtake the diſorder: the "vox rauca" and "tuſſis clangoſa," will infallibly determine the real exiſtence of Croup.

September 17, 1800, Elizabeth Clark, two years of age, was *suddenly* ſeized laſt night at eight o'clock with hoarſeneſs and difficulty of breathing; both which ſymptoms are greatly increaſed this morning. She coughs with a barking noiſe; pulſe very quick; belly natural.

Sumat tincturæ Digitalis, (ſecundum Dr. Maclean) gt. vj. 4tâ. quâque horâ.

18th. Has taken five doſes of the drops; pulſe not too frequent; dyſpnœa and cough *entirely* gone. Sumat guttas omni 6tâ horâ.

19th. Took the drops regularly every ſix hours; had a ſlight return of dyſpnœa and cough laſt night, which continued about an hour; ſlept well afterwards, and is this morning apparently well.

21ſt. Continues free from complaint.

If you think the above worthy a place in your Journal, I ſhall ſend you a faithful account of the reſult of any future trials I may have an opportunity of making of the Digitalis, as a remedy for the Croup; and beg leave to obſerve, that the three already ſent, are the only caſes of Croup which have fallen under my care, ſince it occurred to me to try the Digitalis.

The Vaccine Inoculation has been brought before the tribunal of the public with ſuch a *weight* of evidence, that I think an *impartial* jury muſt give a verdict in its favour. It ſeems, therefore, quite ſuperfluous to bring forward any more witneſſes. Yet, as late experience has removed a doubt from my mind, which, probably, ſtill lies as an objection againſt Cow-pox with many others, I think it my duty to ſtate the following circumſtance in favour of it, as I had *previouſly* an intention of communicating it to the public, had a *contrary* reſult taken place. About two months ago, I delivered the wife of Thomas W. a watch-maker in this town, of a girl, which I inoculated for the Small-pox about three weeks ago. Mrs. W. and two other young children, had been inoculated at Cheltenham, for the Cow-pox, by Dr. Jenner himſelf, about fourteen months ago, and afterwards for the *Small-pox*, which they told me did not take place in either of the three. Doubting whether time might not ſo far alter the conſtitution, at leaſt of children, as to deſtroy the former good effects of Vaccine Inoculation, I inoculated them again with the infant. I am happy to

to ſay, it totally failed in all *three*, although the infant, who was inoculated with the ſame matter, ſickened, and had an unuſual number of puſtules. I am,

Your's, &c.

G. CUSTANCE.

Kidderminſter,
October 12, 1800.

Dr. Domeier, *on the Appearance of the Tongue.*

"*Is a furred tongue a sign of a foul stomach?*"

IN examining the hiſtory of medicine, it will not eſcape our attention, that one of the ſtrongeſt reaſons which retarded its progreſs, was our ſwearing in verba magiſtri. Whatever part, eſpecially in the practice of medicine, we conſider, we find this confirmed. We order bleedings, emetics, purging draughts, yea whole claſses of the materia medica, not with any ſatisfactory reaſon adapted to the animal œconomy, but becauſe authors of a great name have recommended them; and we pervert faith (certainly a great Chriſtian virtue) by applying it to a ſcience where it ceaſes to be one.

I ſhall at this time endeavour to ſhew, in a few lines, that we miſunderſtand one of the moſt common appearances, and that it leads us, in conſequence, to a wrong mode of practice, I mean *a foul tongue*. It is adopted nearly as an axiom in the ſchools, that a loaded tongue indicates a foul ſtomach, and it is therefore no longer matter of enquiry whether this concluſion is true or not. Notwithſtanding the prevalence of the opinion, I hope to ſhew its error.

Suppoſing the ſtomach overloaden even with its own corrupted juices, or with matters taken in by the mouth, could it happen, againſt the laws of gravity, that ſome particles of them could aſcend, to depoſit themſelves upon the tongue, ſuppoſe to ſhew us, that the ſtomach contained corrupted or more matter only than it ſhould do? Certainly not.

Suppoſing the laws of gravity had ſuffered an alteration in favour of phyſicians and apothecaries, to give them occaſion to adminiſter their tartariſed antimony, how ſhould theſe matters eſcape the ſtomach, becauſe it is well known that the mouth of the ſtomach is always cloſely ſhut, and that for this reaſon we cannot even diſcharge air without a great effort; though air ſhould find its way eaſier than the black viſcous ſtuff we often remark upon the tongue.

We find our tongue clean after dinner, and unclean when we

we awake, and when our ſtomach is quite empty, and in ſo ſound a ſtate that we feel hungry, and order our breakfaſts. The ſtate of a ſtomach overcharged with victuals, or containing corrupted juices, cannot laſt ſo long as we often remark a foul tongue to continue. The acrimony of the matter would increaſe, irritate the ſtomach, and cauſe vomiting, or find its way downwards.

Another error generally entertained by the public, and too often by practitioners, confirms the one I am ſpeaking of. As ſoon as they ſee an unclean tongue, an emetic is pronounced unqueſtionably neceſſary. They adminiſter it, and with the ſecond or third vomiting always comes forth ſome bile, and ought to come, of whatever conſtitution the patient may be, provided his biliary duct is not obſtructed by calculas. Now they conclude, often out of ignorance, often out of quackery, the beneficial effects the emetic has produced! From what violent diſeaſes it has ſaved the patient!

And to what practitioner has it not happened to obſerve ſpontaneous vomiting very frequent, eſpecially in this ſeaſon of the year, ſoon after the great heat, of green bile, and ſo corrupted that it corrodes the fauces, and feels acrid in the mouth, while the tongue is as clean as poſſibly it can be. I have had an opportunity of obſerving this, within theſe few days, in a boy of eleven years old, ſon of a French emigrant, who had a fever, accompanied with head-ach, loſs of appetite, and pains, with great uneaſineſs, in the region of the ſtomach, &c. *but a red, clean, humid tongue.* I preſcribed for him an emetic, and he vomited immediately *green*, acrid bile, after which he recovered. His tongue was, before, during, and after the indiſpoſition, of a true bilious kind, always in the ſame ſtate.

It ſeems, upon the whole, that we accuſe the bowels too often as a cauſe of many indiſpoſitions, becauſe we do not endeavour to find any other.

The paſſage being always ſo largely open, and few cauſes exiſt which may obſtruct it, it ſeems not likely that crudities could be ſo often accumulated as we ſuſpect them; and I think, that the unſatisfactory conſequences of our too frequent purging draughts would inform us of the error, if the majority of practitioners believed leſs in authorities, and accuſtomed themſelves more to make obſervations.

Thus, I believe that I have proved, a priori, that the ſymptom of an unclean or furred tongue, never *can* proceed from a foul ſtomach only; and it has the more weight, as it is confirmed by diſſection.

Having lived in Italy for ſeveral years, I have often taken the advantage of the facility of diſſecting bodies in that coun-

try; and putrid fever being one of the moſt common cauſes of death in Italy, eſpecially during the five hot months, I have laid open the ſtomach and bowels of a great number who died with a furred, even with a black tongue, but never found any crudities in them.

I commonly knew the remedies they had taken during their illneſs, and it ſeldom is the practice in Italy to give an emetic or purging draught in that diſeaſe; but in both caſes I found the inteſtinal canal clear.

Theſe reaſons ſhew clearly that it is impoſſible a foul tongue ſhould ſhew the ſtate of the ſtomach.

There muſt therefore be another ſource for this ſymptom, which is ſo frequently remarked, and this, in my opinion, is twofold, namely:

It is either,

1. A precipitation from the ſaliva; or,
2. An effect of increaſed evaporation.

If it proceeds from the decompoſition of the ſaliva, then our food becomes bitter to the palate, for the ſenſe of taſte does not perceive it till diſſolved; or they have ſome particular taſte, which in a natural ſtate of that fluid they ſhould not have: In ſhort, the ſpittle comes then nearer its corrupted ſtate than it ſhould do in a ſound perſon.

If it proceeds from a precipitation of the breath, then this will be in general offenſive, from being loaden with heterogenous matter, which, by its paſſage through the mouth, is in part precipitated upon the tongue, gums, and teeth. In this caſe it is a ſign of the ſtate of the blood, and of the functions of the lungs.

It is certainly very neceſſary for the progreſs of the healing art, to doubt ſometimes what the ſchools of phyſic, during centuries, have acknowledged as facts, to abandon nonſenſe, and to ſeek the truth.*

London, Sept. 1800. W. DOMEIER.

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* The ſentiments and reaſoning of this Correſpondent, about ſixty years ago, would have procured him fame; at preſent the Humorial Pathology of Boerhaave is become obſolete in this country. The appearance of the tongue, however, is a circumſtance of ſo much importance, that we wiſhed to call the attention of our Correſpondents to the ſubject, and have therefore admitted the paper.——EDIT.

To Dr. PEARSON.

Dear Sir,

I Should have anſwered your polite letter (incloſing the Vaccine matter) ſooner, but waited in the hope of collecting farther information with reſpect to the traditional and popular knowledge of the Cow-pock. My reſearches have been hitherto confined to a ſmall portion of the weſtern part of this country, where I have met with thirteen inſtances of people who had gone through the Cow-pock, and were afterwards exempt from the Small-pox. With regard to the ſuppoſed origin of the diſeaſe, it was never ſuſpected in this country *to be derived from the greaſe of the horſe's heel*: Indeed, the bare proof of the exiſtence of the Cow-pock in this country, ſeems to me a ſufficient refutation of the only hypothetical part of an inveſtigation conducted with uncommon ingenuity, and completely ſatisfactory in the principal objects for which it was undertaken, viz. the ſuperior mildneſs of the Cow-pock, and its power of deſtroying the ſuſceptibility of the conſtitution to the Small-pox. Women alone are employed in milking cows in this country; in this office men never interfere, as they would think themſelves diſgraced by engaging in any rural occupation, in which the other ſex are uſually employed.

I now proceed to relate ſome of the caſes, deferring any further remarks until a few of theſe are detailed.

Cornelius Creedon, æt. 60, (a labourer in the employment of Samuel Townſhend, Eſq. Firmount) ſeveral years ago ſlept with a cow-boy, who took the Shinach, (Cow-pock) from handling the teats of cows affected with it. He had ſhivering, general uneaſineſs, and ſickneſs at the ſtomach, which ſubſided on the appearance of an eruption in his neck, breaſt, and arms; the auxillary glands were ſwelled and very painful. In ten years after he was inoculated with the Small-pox, and has ſince, during three ſucceſſive inoculations of this diſeaſe in his family, handled and nurſed his children without the leaſt effect. He, as well as his entire neighbourhood, attributed his eſcape to his previouſly having had the Cow-pock. The cow-boy, as far as he recollects, got the diſeaſe from rubbing the ſore teats of the cows with ſome application, which he believes to have been burnt butter: is ſure it was from the cow-boy he was infected, as he did not himſelf handle the cows. His ſiſter had the diſorder at the ſame time, and has been ſince alſo inoculated, without taking the ſmall-pox.

Ellen Goggin, (wife to a tenant of Mr. Townſhend) ſeventeen

teen years ago, after previous ſickneſs at ſtomach, and ſymptoms of general fever, had a copious eruption of Cow-pock on her hands. The cows were much afflicted with it at the time, and their milk was in conſequence much leſſened. The ſickneſs ſhe deſcribes as being more ſevere than any ſhe had ever experienced; but ſhe was greatly relieved by the eruption. By frequent handling, ſhe communicated the diſeaſe to an infant whom ſhe was ſuckling; but the eruption, though copious, did not ſuppurate, and ſhe could not obſerve any ſigns of general diſturbance in him. In two years after, this boy and a younger brother were inoculated for the Small-pox; they lay together during the progreſs of the diſeaſe; his brother ſhewed a great quantity of Small-pock, but he had no ſign of it either at the arm or elſewhere. Three more of the family were lately inoculated, with one of whom he ſlept, though he had the Small-pox, which, however, he did not take. During theſe inoculations, the mother conſtantly attended the children, and handled them daily, without taking the Small-pox. She attributes her own eſcape, as well as that of her ſon, to their having had the Cow-pock, as above related, and has often heard and ſeen inſtances of ſimilar exemption produced by this diſeaſe.

Can it be inferred from theſe cauſes, that the diſeaſe is infectious in its natural ſtate? In the inſtance of Goggin, it is eaſy to conceive, that the woman might have handled the child with her hands covered with fluid matter from the cows' teats. May not the ſuperior violence of the diſeaſe render it communicable by contact in its natural ſtate? In the inoculated Cow-pock I can determine this point, if it were not ſufficiently proved already. I inoculated fifty children, not above twenty of whom ſhewed the marks of infection at the arm at the uſual period. The infected children continued to ſleep with the uninfected as uſual; yet, not one of the latter took the diſorder, which I was forced to communicate to them by a ſecond inoculation.

Johanna Sullivan, æt. 50, (cook-maid at Dr. Richard Walſh's of this city) when ſhe was 13 years of age, was brought with a number of other children to a dairy, for the purpoſe of being infected with a diſorder of cows called the Shinach, which, by the general belief of the neighbours, would ſecure for ever ſuch as took it from the Small-pox. She and the other children were made to ſqueeze the cows' teats till their hands and fingers were covered with the fluid matter of the diſorder. She recollects that a number of the children did not take the diſeaſe; ſhe, however, had one pimple on her hand, which inflamed and ſuppurated. When ſhe was twenty years of age

ſhe

ſhe was twice inoculated by Mr. Godwin, an apothecary at Bantry, without effect; but on hearing from her mother that ſhe had the diſeaſe above-mentioned, he declined inoculating her a third time, alleging that there was not the ſmalleſt danger of ever taking the Small-pox, as he could aver from experience. She has ſince reſided in Cork, where ſhe was frequently expoſed to Small-pox, particularly about eleven years ago, when the grand-children of the late Mr. Attiwell Hayes, with whom ſhe then reſided, were inoculated. In order, as ſhe ſaid, to *be ſure of herſelf*, ſhe lay with the children four nights in the height of the eruption, but did not take the diſeaſe. As my letter is already of unconſcionable length, I ſhall conclude my account of the natural Cow-pock with the following extract of a letter from a lady of reſpectable connections; ſome of whom had experienced the Cow-pock in early life. This communication is worthy of attention, no leſs from the nature of the information, than from the authority from whence it is derived.

——"It is thirty years ſince my mother had the Cow-pock. She recollects having had two pimples on one hand, which were much inflamed, and afterwards went on to ſuppuration. She has been inoculated frequently ſince, and expoſed to the infection of Small-pox in various ways, without taking it, which has been attributed to her having had the Cow-pock, univerſally known among our farmers by the name of Shinach. I was laſt night ſpeaking to my grand-mother on the ſubject. She had the Cow-pock fifty years ago. Her account agrees with my mother's. She had the eruption on one hand, and, ſhe ſays, ſhe never in her life experienced ſo much pain as while the inflammation laſted. She has never been inoculated, but was very often expoſed to the Small-pox without taking it. At the time ſhe had the diſeaſe, there was ſcarcely a Spring that the cows were not affected with it; and it was ſo univerſally believed that thoſe who took it were ever after exempted from the Small-pox, that people expoſed themſelves as much as poſſible to it. My grand-mother, who is above eighty years old, ſays, that the ſame opinion always prevailed in this country."

Other accounts agree, that the diſtemper is not near ſo frequent as it was forty or fifty years ago. It appeared, however, in this neighbourhood laſt month, but declined before I had an opportunity of ſeeing it. In one part of the country, where there are no traces of it except in the memories of ſome very old people, they account for its diſappearance in the following manner: They aſſert, that it was firſt produced by the bite of a certain inſect, the breed of which has been now de-

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ſtroyed by the *frogs*, which are known to be of foreign origin, and, on this account, retain their Engliſh name. I mention this, to ſhew that the Iriſh are not wanting in conjecture on the origin of the diſtemper as well as the Engliſh. This opinion of the diſeaſe, however, is not general.

The Iriſh name of the diſeaſe (Shinach) belongs to the old written language of the country, and has no relation to the modern colloquial dialect; this I conſider a ſtrong proof of the antiquity of the diſtemper. It is evident from the facts I have ſtated, and from the remainder which I have myſelf collected, or received from friends, that the belief of the antivariolous power of the diſeaſe is as ancient as that of the exiſtence of the diſeaſe itſelf. That this power is not *fugitive* but *permanent*, all theſe caſes fully prove; and thus an argument againſt the new inoculation, which has been uſed in this city as well as in England, receives a ſatisfactory anſwer.

In all the caſes I have met with, the fever preceded the eruption, and was relieved by it.

I received ſome vaccine infection from Dr. Bradley, previous to my having received your letter, as I have acknowledged in a communication to the Phyſical Journal. With the thread received from him, I was ſucceſsful in procuring an abundance of infection. I gave your thread to my friend Dr. Sugrue, who had equal ſucceſs. He has extended the inoculation to 50 children. The number I have inoculated amounts to 250, not above three of whom had eruptions, which diſappeared without ſuppurating. I have not inoculated above twelve with the Small-pox, the lower order having ſome ſuperſtitious notions, which prevent them from agreeing to a ſecond inoculation. I ſelected five of theſe, from their not having exhibited the leaſt appearance of conſtitutional fever, though the progreſſive ſtate of the puncture at the arm had been exactly ſimilar to the other caſes. Two of the five were adults, and therefore capable of deſcribing any ſymptoms they might have experienced. The matter I uſed was freſh taken from a child covered with variolous eruption in a ſtate of ſuppuration. The punctures, after looking inflamed for three or four days, withered without forming a puſtule. Hence I would infer, that it is the ſtate of the arm alone we ſhould regard, particularly as fever is produced in children often from the ſlighteſt cauſes. I have the pleaſure to acquaint you that moſt of the Phyſicians of reſpectability in this city are fully convinced of the efficacy of the Cow-pock. I have ſupplied many of them with infection; among others, Dr. Longfield, who has inoculated his only grand-child, the infant ſon of Mr. Leſlie, the banker. From Dr. Longfield's age, the reſpectable rank he holds in his profeſſion,

profeſſion, and his love of ſcience, his example muſt have great weight with the public. To remove ſome objections which have been advanced againſt the inoculation, and, if poſſible, to extend its benefits as widely as poſſible, I have it in contemplation to addreſs the public in a ſmall pamphlet in a popular ſtyle. This ſeems neceſſary, as very few of the original works on the ſubject have yet reached this country, and therefore objections, however weak, muſt have their effect when they remain unanſwered. By this means I ſhall alſo, I truſt, be enabled to collect more numerous facts on the natural Cow-pock. If you have any new information on the ſubject, I ſhould be obliged by the communication of it. If you have no particular uſe for the information I tranſmit you, I ſhall thank you to ſend it to Dr. Bradley for publication, if he thinks proper. With him I beg you will accept of my acknowledgments for the infection, which promiſes incalculable benefits to this part of Ireland. I remain, dear Sir,

Your ſincere humble ſervant,

Cork, Oct. 16, 1800. JOHN W. BARRY.

P. S. Dr. O'Leary, your late pupil, is arrived, and informed me of your wiſh to hear from me, which induced me to write ſooner than I intended.

To Dr. BATTY.

Dear Sir,

If it ſuit your convenience, pray inſert the incloſed Reſolutions of the Directors of the York Diſpenſary in the next Number of your Journal. I alſo ſend you two letters that preceded the meeting at the Diſpenſary, which you may diſpoſe of as you think proper; they will ſhew you, that we are not totally negligent of the welfare of our fellow-citizens, though ſo far remote from the centre of animation.

I am your affectionate friend,

York, Oct. 13, 1800. R. CAPPE.

YORK DISPENSARY.

At a meeting of the Directors of the York Diſpenſary, held at the Merchants' Hall, in Foſsgate, on Thurſday, October 9, 1800, (Mr. Alderman Wilson in the Chair,)

Reſolved,

1. That it appears, from the opinion of many of the moſt experienced medical men, that a General Inoculation for the

Cow-Pox throughout the island of Great Britain and Ireland, would nearly effect the extinction of the casual Small-Pox, and consequently be the means of annually saving the lives of upwards of 45,000 children and grown persons.

2. That the Physicians and Surgeons belonging to the Dispensary be requested to form themselves into a society, for the purpose of inoculating all such persons as may present themselves for Inoculation for the Cow-Pox; and that the Society, so formed, do invite into their body such Physicians, Surgeons, and Apothecaries as may be resident in York, and who, in their opinion, may promote the objects of that Society.

3. That the Physicians and Surgeons of the Dispensary be desired to supply the country practitioners with Matter, when requested, it being found, from unquestionable authority, that it does not lose its active powers by being transported to the distance of several hundred miles.

4. That the Directors shall use their utmost endeavours to encourage Inoculation for the Cow-Pox in all the neighbouring villages, as an auxiliary means of preventing the introduction of the casual Small-Pox into this City.

5. That a public Subscription be solicited, for the purpose of defraying the expence that may be incurred by this new Institution; and that the same be applied by the Directors of the Dispensary in such a way as they may deem most likely to further the objects thereof.

6. That this plan shall be carried into execution with all convenient speed, with a view to obviate the dreadful effects of the casual Small-Pox, which at this time are attended with considerable mortality in many parts of the country.

7. That the Resolutions and Regulations of this Meeting be sent to all the Clergymen in York, and the neighbouring villages, with request of the Meeting, that they will communicate the same to their parishioners, pointing out the advantages attending the Inoculation for the Cow-Pox in any way they judge most likely to forward the views of this Meeting.

8. That the Medical Gentlemen of the Dispensary be requested to draw up and print such Rules for the use of the poor, as may be necessary to regulate their conduct and attendance on the Dispensary during the period of Inoculation for the Cow-Pox.

9. That Books be opened at both the York Banks, where the smallest sums will be received, in support of a plan that has for its object the extinction of the casual Small-Pox from this city and neighbourhood; it being a fact, supported on the best authority, that a body once made the subject of the Cow-Pox, is rendered incapable of receiving the infection of the Small-Pox.

10. That

10. That the Refolutions of this Meeting be figned by the Chairman, be printed for general diftribution, and publifhed in the three York Papers.

11. That the Thanks of this Meeting be given to the Chairman, for his great attention in conducting the bufinefs of the day.

THOMAS WILSON, Chairman.

To the EDITOR of the YORK HERALD.

Sir,

IT is known probably already to many of your readers, that more than two years ago Dr. JENNER, a phyfician of long experience and high reputation in Gloucefterfhire, publifhed a defcription of a diforder, much lefs fevere than the Small-pox, which renders the human body permanently fecure againft the fmall-pox contagion. The fact was known many years ago, in fome parts of the ifland, among thofe who had received the difeafe cafually; was long the object of Dr. Jenner's attention; and, fince his firft publication, has been verified by the obfervation of many eminent phyficians and furgeons in London, and different parts of the country, and by many gentlemen not engaged in the profeffion of medicine. The difeafe has alfo been tranfplanted to the Continent with the fame good effect; and has been received by fome of the firft families in this kingdom. In London, an Inftitution for the inoculation of it has been eftablifhed, the care of which is committed to Dr. Pearfon,* to whofe active zeal the world is indebted for much of the early and far-extended intelligence refpecting this difcovery.

The progrefs of the obfervations on this difeafe, I have watched with much jealous attention; but at length my doubts have been removed, by evidence of the utmoft credibility: and having found Mr. Edward Wallis of the fame fentiments as myfelf, I have lately, with his obliging affiftance, inoculated fome children in this city with the newly difcovered difeafe; the firft, I believe, who have undergone the operation here. We have found the difeafe in every refpect correfpond with accounts already publifhed; and, indeed, as a friend of mine, an eminent furgeon in London, expreffed himfelf in a letter to

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* The medical eftablifhment of this inftitution has lately been increafed; there are now three phyficians and three furgeons, befides confulting furgeons and vifiting apothecaries.

me a few days ſince, "we have not ſeen any indiſpoſition attend it worthy of notice."

To ſhow the advantages which the new inoculation promiſes, I will ſtate conciſely the peculiarities of the ſmall-pox and of this diſeaſe.

The ſmall-pox are communicated through the air; and the contagion attaching itſelf to clothes, merchandize, and letters, is ſpread over a vaſt extent of country, and is ſometimes conveyed acroſs the ſea to diſtant kingdoms. The ſmall-pox were brought from the Eaſt to Europe; they were in Britain probably before the birth of Mahommed. The Europeans have ſince ſpread this dreadful diſorder from the Equator to the Pole. The Danes carried it to Greenland; the Spaniards poured its ravages, more terrible than their arms, through the unhappy country of Peru: in the ſingle province of Quito, 100,000 perſons died of the ſmall-pox when they firſt appeared in that country.

The ſmall-pox are now, it is true, a much leſs dreadful diſtemper than formerly. The improved medical treatment has rendered the caſual or natural ſmall-pox much more mild; and inoculation ſtill farther diveſts this diſeaſe of its terrors. Still, however, ſome die of ſmall-pox in all ſeaſons, and in ſome ſeaſons many. From the London Bills of Mortality, it appears that the ſmall-pox have, upon an average, annually deſtroyed more than 2020 perſons during ſeventy-five years, ending at 1777; the total amount is 151,570. Since that date I have not the bills before me; but in 1798, 2237 died of ſmall-pox, and in 1799, 1111. The deſtruction made by ſmall-pox is probably ſtill more dreadful, ſince thoſe bills do not include the deaths of perſons buried out of London, or in grounds not belonging to the Eſtabliſhed Church; nor do they include the two populous pariſhes of Pancras and Mary-le-Bonne, in which the annual burials for ten years, ending in 1742, were 1041.* Still the number of deaths from ſmall-pox in London, great as it is, probably bears a leſs proportion to the deaths occaſioned by ſmall-pox through the whole iſland, than the population of London bears to the population of the whole iſland. —For, by the Bills of Mortality, it appears, that one fourth of all the deaths in London is of ſtrangers; who, it is diſcovered from the ſame ſource, do not fix in London till the age of 18 or 20; and therefore among the new ſettlers, it is probable, there are few who have not had the ſmall-pox previous to their arrival in London;—and many children born in London, have

* The Small-pox Hoſpital and the Foundling are in theſe Pariſhes.

have the ſmall-pox in the country.* The very *means* that ſave the lives of many who have this diſeaſe, increaſe the number of thoſe who receive it; and it is now annually fatal to a greater number of perſons than before the improvement in the treatment of it; and the increaſe of deaths is not merely in proportion to the increaſe of population. Free admiſſion to the open air, though neceſſary for the ſick, expoſes thoſe who have not had the diſeaſe, not merely to the chance, but almoſt to the certainty of taking the infection. Very few of the inhabitants of this iſland now eſcape it.

The ſmall-pox are ſevere and dangerous in proportion to the number of puſtules; and of 1000 perſons, inoculated for that diſeaſe, generally more than 800 have puſtules. The ſmall-pox are peculiarly dangerous to infants and very young children, and women in pregnancy, who very rarely eſcape abortion when they receive this diſeaſe caſually. "The natural ſmall-pox in pregnant women is fatal in at leaſt nineteen out of twenty caſes to the fœtus in the womb, and to three-fourths or four-fifths of the women:"† and of thoſe pregnant women, whom perſonal ſafety has compelled to ſubmit to inoculation, many have loſt their own lives, and very few have borne living children.

The newly diſcovered diſeaſe has been diſtinguiſhed by the name of *Cow-pox* or *Vaccine-pox*, having been originally obſerved on the teats of cows, in ſome of our dairy counties. It is never communicated but by contact, and then only when the fluid matter lies on the broken ſkin.

Many women in pregnancy have paſſed through this diſeaſe, and none have ſuffered from it.

Inſtead of being peculiarly dangerous to young infants, it ſeems often to be peculiarly mild in them.

The diſorder is attended with very ſlight fever, which ſeldom laſts longer than a few hours. In ſome inſtances eruptions have appeared; but they had a very different courſe from thoſe of the ſmall-pox, ſeldom coming to ſuppuration, and leaving no marks on the ſkin. And even in thoſe inſtances in which an eruption at all reſembling the ſmall-pox has appeared, it is now the opinion of medical gentlemen, moſt experienced in the diſeaſe, that it has ariſen from expoſure to the effluvia of ſmall-pox.

The vaccine-pox are communicated by a ſcratch as ſlight as

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* By an Act of Parliament paſſed in the year 1767, which we owe to the humanity of Mr. Hanway, all pariſh infants are ſent in three weeks after birth, into the country, to be nurſed for ſix years.

† Med. Commentaries, 1794.

as that used for inoculating the small-pox; but the disease is so little infectious, that it is sometimes necessary to make repeated attempts before the inoculation succeeds. Around the scratch a watery vesicle is formed, and an erysipelatous redness soon surrounds the whole. This sometimes spreads extensively, but with little inconvenience; and, when properly managed, it is easily checked. The redness abates, and a hardness less extensive succeeds. The vesicle becomes dry, a crust is formed over it, and the whole gradually heals. In some instances the crust separates, and leaves a spot unhealed like that of an issue. In some of the earlier inoculations, these sore places became troublesome; but, at that time, the proper treatment of the inoculated part was not discovered. There is generally a slight swelling in the armpit, but it soon subsides without requiring medicinal applications.

I will only add the result of the observations of a single physician, with which those of others perfectly coincide. Dr. Woodville, whose attendance on the Small-pox Hospital of London qualifies him peculiarly as a judge of the comparative severity of the two diseases, expresses himself much in favour of that recently discovered. "I have no doubt, that the inoculated cow-pox is as much milder than the inoculated small-pox, as the latter disease is milder than the casual small-pox: nay, it seems to me, from the very benign form in which the vaccine-pock has of late invariably appeared, that it may be considered as a disease perfectly harmless in its effects."*—— The cow-pox are not hitherto known certainly to have been fatal in any instance. A little infant, under Dr. Woodville's care, died in convulsions on the seventh day after it was inoculated with vaccine matter; but convulsions frequently occur in infants, and are frequently fatal.

Dr. Woodville had, several months ago, inoculated 1000 people with the small-pox, who had previously had the inoculated cow-pox; not one of them received the infection. Many elderly people, who had received the cow-pox casually, were inoculated for the small-pox after many years, one at the distance of 53 years, but did not receive the infection. From Dr. Jenner's first pamphlet, and a letter lately published, addressed to him by Wm. Fermor, Esq. I have made the following list of persons, who had had the cow-pox many years before, and did not receive the small-pox on inoculation. Many were often exposed to them in their own families when epidemic.

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* Woodville's Observations on the Cow-pox, page 30. Published July 15, 1800.

From

From Dr. JENNER.		
Joſeph Merret - - -	25	The interval of years between the infection of cow-pox and inoculation of ſmall-pox.
Sarah Portlock - - -	27	
John Phillips - - -	53	
Mary Barge - - - -	31	
Elizabeth Wynne - -	38	
William Stinchcomb -	10	
Heſter Walkley - -	26	
From Mr. FERMOR.		
William Tredwell - -	3	
Alban Collingridge - -	4	
Mr. Stevens * - - -	4	
Thomas Slater - - -	6	
Mr. H. Collingridge -	10	

* He nurſed his own family in the natural ſmall-pox with impunity, 27 years after having had the cow-pox.

Many ſimilar facts have been publiſhed by Dr. Pearſon, and other writers on the cow-pox, but it ſeems unneceſſary to adduce them, ſince only one perſon in twenty, according to the higheſt ſtatement, is by natural conſtitution incapable of receiving the ſmall-pox. Of theſe twelve, therefore, none ought from this cauſe to have eſcaped the infection; and there are ſo many millions of chances to one, that all could not eſcape, that it may be eſteemed practically impoſſible. The ſecurity againſt the ſmall-pox was therefore derived from the cow-pox, taken, in moſt of theſe inſtances, early in life. Dr. Woodville has not found thoſe perſons incapable of receiving the ſmall-pox, to exceed the proportion of one in ſixty, and they are equally exempt from the cow-pox.

Is it preſuming too much from theſe facts to believe that a perſon who has had the cow-pox, will remain for ever ſecure againſt the ſmall-pox?

If the cow-pox ever eradicate the ſmall-pox, this cannot happen till ſome very diſtant period. The Chineſe, it is to be feared, will long cheriſh this enemy to mankind with their indiſcriminate prejudice in favour of old habits. The immediate advantages it offers are the following: When the ſmall-pox are epidemic, (and in towns they are annually epidemic) young infants and pregnant women may be protected againſt a diſeaſe to them peculiarly dangerous, by one not at all unfriendly to them.

One perſon in a family may be ſecured againſt the ſmall-pox, by inoculation for the cow-pox, without danger to others, when peculiar circumſtances render it improper to inoculate the whole

family;

family; but the ſmall-pox cannot be given to one, without danger to all in that family who have not had them.

The cow-pox too, in proportion as it is a milder diſeaſe than the inoculated ſmall-pox, will, on that account, more extenſively than common inoculation, diminiſh the fatality of caſual ſmall-pox. But the new inoculation will in a far greater proportion prevent the ravages of caſual ſmall-pox, ſince common inoculation is ſometimes, in towns, undoubtedly the ſource whence ſmall-pox are ſpread among the people.

Inoculation for the vaccine-pox ſhould be made early in life; for if it be deferred till the ſmall-pox become epidemic, it is not always a certain preſervative. Some people, who had been previouſly expoſed to the contagion of ſmall-pox, had that diſeaſe, though inoculated with vaccine-matter, before any ſymptom of illneſs had appeared. Sometimes, however, the reſult has been more favourable.——The inoculation ſhould be made with the leaſt ſcratch that may be effectual, as the ſize of the ſucceeding veſicle depends much on the ſize of the ſcratch; and the ſmaller the veſicle, the more ſpeedy is the healing proceſs. The matter for future inoculation ſhould be taken in its moſt limpid ſtate: it has generally been found ſucceſsful when taken about the eighth day.

We have reaſon to be infinitely thankful to Providence for the means, now put into our power, of immediately checking the ravages of one of the moſt fatal plagues; and for the cheering hope of entirely exterminating that ſcourge from the face of the earth. With theſe ſentiments I feel it not leſs than a duty to lend my aid in ſpreading around the knowledge of the advantages which the vaccine inoculation offers us.

I am, Sir, yours, &c.

York, Sept. 5, 1800. ROBERT CAPPE.

To the EDITOR of the YORK HERALD.

Sir,

THE following Communication I have deferred for ſome weeks, from the hope of attaining more accurate information reſpecting the mortality of ſmall-pox in this city.

In a former letter which appeared in your paper on the 6th of September, intended as an introduction to this, I ſtated that the average of deaths from ſmall-pox, for ſeventy-five years, within the bills of mortality of London, had annually exceeded 2020. If the population within the bills of mortality may be ſtated at 1,000,000, which is probably not far from the truth, the

the proportion is one death from ſmall-pox in every 500 inhabitants. I remarked, that there is reaſon to believe that the mortality from ſmall-pox, through the whole iſland, is not in leſs proportion to the population: it probably far exceeds this eſtimate. The inhabitants of Mancheſter, Liverpool, and Cheſter, were enumerated in the year 1773, the total amount was 78,271, and the annual deaths from ſmall-pox, on an average, were 381;* therefore one perſon died of this diſeaſe, every year, in $205\frac{166}{381}$ of the inhabitants. The cauſe of this difference of mortality from ſmall-pox, in London and theſe towns, is in part to be explained by the number of new ſettlers in London. To obviate all doubt of exceeding the truth, in my former letter I ſtated the deaths of emigrants from the country as only one-fourth of all deaths in the bills of mortality; but, in fact, they have fallen little ſhort of one-third.† There are no means of obtaining an accurate eſtimate of the mortality from ſmall-pox in a town, the population of which is, in part, ſupported by emigration from the country; but the neareſt approach to the truth is made by comparing the deaths from ſmall-pox with the births. This method even is ſubject to the error of giving too ſmall a proportion, from the removal of children into the country before they undergo the ſmall-pox. In London there is one death from this diſeaſe in each $6\frac{1}{2}$‡ of all births; in Liverpool, one in $5\frac{1}{2}$‖. I have not been able to aſcertain the mortality of ſmall-pox in this city, for the diſeaſes are not mentioned in many of the regiſters of burials; but from the moſt accurate information I have obtained, it is probable that the deaths from ſmall-pox have, many years, born a greater proportion to the number of inhabitants than in London. If they were equal, the annual deaths from this diſeaſe would probably be about 32: but I have, with little trouble, collected the names of twenty-one children who have died within the laſt three months of ſmall-pox; and a more ſtrict inquiry, I fear, might much increaſe the liſt.

" The general diffuſion of the ſmall-pox affords a popular

* Haygarth's Sketch of a Plan to exterminate the caſual Small-Pox, vol. 1, p. 142.

† Price's Obſervations on Reverſionary Payments, vol. 1, p. 340, 5th edition.

‡ The annual medium of regiſtered births in London for five years to 1768, was 16,291. Price's Reverſ. Paym. vol. ii. p. 345. " The number of thoſe who died of ſmall-pox in the laſt four years, on an average, is 2544." Dinſdale's Thoughts on General and Partial Inoculation, p. 44, publiſhed 1776. The proportion at preſent is probably not very different.

‖ Dr. Dobſon, quoted by Dr. Haygarth, Sketch, vol. i. p. 140.

 prejudice

prejudice that no civil regulation can control its progress; but authentic proofs of its extermination from Rhode Island, New England, and St. Helena, being produced, no great effort of wisdom is required to conclude, that, by the like methods, it might be exterminated from Great Britain."§ And we have an example before us, in the bosom of our own country. A society was formed at Chester, in the year 1778, on the suggestion of Dr. Haygarth, for checking the mortality of small-pox, and for entirely excluding them as an epidemic disease. The efforts of this society had the most happy success; and its experience proved, that the small-pox may be prevented raging among the people, in any country, by a few simple rules, and at little expence. The Chester plan required a periodical general inoculation for small-pox. This was attended with some difficulty; and as the period for inoculation, on the whole, most to be preferred, was every second year, there were occasional deviations from the rule, attended with some danger of rendering the small-pox epidemic in the town. And some persons could not be prevailed on to receive by inoculation, a disease which, in the most favourable circumstances, is not without danger, and might prove fatal. These obstacles to the accomplishment of a purpose so much to be desired, are now happily removed by the discovery of the cow-pox, a disease in its nature mild, not contagious; seldom attended with any sickness, never with danger, and affording permanent security against the contagion of small-pox. The present time, therefore, is incomparably more favourable for the execution of such a plan, than the period when it was adopted with success at Chester. No restraint need be imposed respecting the seasons of inoculating for the cow-pox, and a general inoculation, tho' on some accounts desirable, may not be absolutely necessary.

The small-pox are chiefly destructive to the poor; the rich, for the most part, secure their children from the casual small-pox by inoculation: but this is done at the risk of their less intelligent neighbours. Thus an operation, which confers an invaluable blessing on the few intelligent individuals who adopt it, becomes injurious to the less intelligent part of the community. Humanity calls aloud on us to substitute a disease that brings security to those who seek it, and spreads danger to none. The poor need no inducement to adopt the cow-pox; the choice is now theirs, whether they will secure to their family life and health, or leave their children the prey of a loathsome and destructive plague, from the dreadful consequences of which

§ Haygarth, Vol. i. p. 164.

which death would often, to the laborious poor, be a desirable release.

This city, remarkable for its liberal support of all works of public utility, would probably abundantly supply the expence attending the execution of a plan for preventing the small-pox being ever again epidemic in the town. The advantages gained by the city and its neighbourhood, by excluding the epidemic small-pox, could not be expressed by any pecuniary estimate. That disease, though, in general, it first appears among the poor inhabitants, yet quickly spreads, from incaution, to the houses of their more opulent neighbours. But were a plan similar to that of Chester adopted, security would prevail; opulent families might confidently relieve the distressed poor, without the dread of suffering for their humanity; the rich might secure their children against a terrible disorder, without the dread of spreading contagion among their poor neighbours; the industrious labourer would escape the visitation of sickness, often to him the forerunner of poverty, family discord, and extreme wretchedness; and the inhabitants of the country would find a visit to the city, attended with no more danger to their infant families than their accustomed walks in the meadows.

I was encouraged to hope, by friends with whom I had spoken on this plan, that it will be received here with approbation; I therefore requested of Dr. Haygarth, now resident in Bath, advice respecting the execution of the plan; and am encouraged by him to believe, that even if the cow-pox were not substituted for the small-pox, the rules of the Chester society, where-ever they may be adopted, will be an effectual means of excluding the epidemic small-pox. But the cow-pox render all restraint unnecessary; and will, in their natural progress, entirely eradicate the small-pox. In the mean time the rules of the Chester society may protect us from the ravages of the casual small-pox.

The first great object may be attained, by the parishes offering to those who may accept it, the gratis inoculation of their children; leaving to the choice of the parents, whether they shall have the small-pox or the cow-pox. If the former be preferred, the parents must engage to observe the regulations; if the latter, no restrictions are required.

A society should be formed, in addition, to pay, by subscription, the rewards to parents and friends for taking care of the health and safety of their neighbours,* and for the purpose of providing a constant supply of cow-pox matter.

* The few rules necessary for conducting such a society, may be seen in Dr. Haygarth's account of the Chester Society.

The general inoculation of this city would be attended with leſs difficulty than general inoculation in other more populous towns, as Leeds, Liverpool, and Mancheſter, where it has been accompliſhed. The ſurgeons of the Diſpenſary have already humanely offered their ſervices to the poor of the city and neighbourhood, extending to them the advantages the cow-pox offer. The public is already indebted to them, and their aſſiſtance may facilitate the execution of a plan I have here ſketched out.

The following paragraph I tranſcribe from a letter, with which Dr. Haygarth lately favoured me.

"You probably know that theſe ſpeculations (referring to his own writing) to exterminate the caſual ſmall-pox, have commenced in Germany. About a year ago, along with a tranſlation of the *Sketch* [the title of one of Dr. Haygarth's publications] I received ſeveral papers in German and French, explaining a medical aſſociation for this purpoſe. On this buſineſs three hundred phyſicians had delivered their opinions. Moſt of the principal governments in Germany ſupport this meaſure. They promiſe to ſend an account of their proceedings every year to every government of Europe. This buſineſs is chiefly promoted by Drs. Junker, Fauſt, Lenz, &c. &c."

In another part of his letter, Dr. Haygarth ſays, that "an introduction of the vaccine, ſtill more than of the variolous inoculation, would effectually promote the great object of my publications."

Dr. Hunter obligingly allows me to add the following extract from a letter I received from him a few days ſince. "A general inoculation for the cow-pox, holds out to the community at large a ſecurity againſt the caſual ſmall-pox, in a manner that muſt meet the approbation of all ſerious and ſober perſons. The endeavour to introduce a mild diſeaſe, in order to exterminate one of an alarming and dangerous nature, reflects great honour on you and the gentlemen of this city, who have voluntarily ſtepped forward in the cauſe of ſo much humanity; and I beg leave to aſſure you and the other gentlemen, that I am ready to give my gratuitous aſſiſtance when called upon as a profeſſional man."

It was lately reported that David Ainſworth, a child two years old, had the ſmall-pox ſince he had the cow-pox. The report is unfounded, though he ſlept with his ſiſter during the whole time ſhe was in the natural ſmall-pox. The girl had been inoculated for the cow-pox at the ſame time as her brother, but the infection did not take place in her.

I am, Sir, yours, &c.

York, Oct. 1, 1800. ROBERT CAPPE.

To the Editors of the Medical and Phyſical Journal.

GENTLEMEN,

IN Number XVIII of your valuable Medical and Phyſical Journal, Dr. Kinglake ſays, that in labours the ſupport of the perinæum is more worthy of female attention than that of an experienced accoucheur, and that the practice of midwifery is not uniformly neceſſary. In anſwer to which, I would ſuppoſe, that Dr. Kinglake has rarely attended to natural labours, or elſe he would certainly never have objected to the ſupport of the perinæum. From the reſpectable authority of Drs. Oſborn and Clark, to whom I am indebted for my ſhare of knowledge in this ſcience, the neceſſity in their lectures was ſtrongly inculcated of making a proper preſſure upon the perinæum, (and ſince then by Dr. Oſborn, in his excellent work upon Natural and Laborious Caſes of Midwifery,) for the benefit of ſecuring it againſt laceration, and at the ſame time that the expulſion of the child will be prevented from haſtily taking place; by which means the placenta will be delivered with more eaſe both to practitioners and patients, and in nineteen times out of twenty will be one means of facilitating its expulſion.

Notwithſtanding what Dr. Kinglake has advanced, the ſupport of the perinæum is probably one of the principal objects in the practice of midwifery, and conſtitutes the greateſt part of a natural labour. The reſiſtance employed by an experienced practitioner, muſt certainly be greater than that perhaps of a kindred female; the benefit greater, and more attention paid to the ſtate of the patient by leſs frequent examinations per vaginam.

The reſiſtance has certainly prevented laceration; and other evils have taken place from a want of a due regard being paid to this ſubject, and have principally happened to ignorant women, denominating themſelves midwifes. If Dr. Kinglake wiſhed midwifery to fall again univerſally into the hands of ignorant women, (which ſeems to be the caſe) this is certainly one way of encouraging it, as by mentioning ſuch circumſtances as theſe, they may militate againſt the general practice.

As the Journal is univerſally read by numbers not of the profeſſion,—from a worthy author of the Qualifications of an Accoucheur, I beg leave to ſelect theſe few remarks: "If inſtances were not known, one would ſcarcely ſuppoſe that any man would be ſo unfeeling and audacious, as to practiſe this branch of the art without a regular training, or that from any compliment

compliment hufbands would chufe fuch a perfon to act in this *important office*; the whole affociation of profeffors and practioners in this department, fhould, for the fake of *humanity*, earneftly unite in difcountenancing untutored intruders; if *guardians of the profession fail to support regularity*, incompetent judges cannot be blamed for making improper diftinctions. Students who are at the expence of a regular education, who clofely apply in acquiring qualifications, and fulfil what is required of them, lofe the neceffary fpur to induftry, when the unqualified can gain equal privileges and equal encouragement.

"Regulars cannot confult with ignorant and untrained pretenders to the art, confiftently with their duty to medical fociety, or with integrity to their employers.

"It may be argued, that women devoid of elementary rules, are frequently trufted with the management of this *momentous office*; but it may be afked, are not men generally preferred, in the expectation of greater fafety in the hands of thofe that have ftudied the ftructure of the parts concerned, and the rules of practice under eminent teachers? Every confcientious profeffor of the art muft acknowledge, that there may be greater hazard from this part of fcience being left to the management of men than women, unlefs fuitable inftructions have been imbibed.

"What a difappointment muft it be to a delicate woman, that has with difficulty being prevailed on to confent to the cuftomary preference, fhould fhe difcover her accoucheur to have no qualifications fuperior to a MIDWIFE."

And again, the worthy Mr. Lucas fays, "As far as many year's experience have enabled me to judge, a regular difciplined accoucheur may find that fome recent information may be derived from every cafe; but fuch proficience cannot be acquired without a proper foundation, a regular education."

Having attended a confiderable number of women, I am of Mr. Lucas's opinion, that fomething may be learned from every cafe; I have attended in midwifery, and I can alfo add, and I think the generality of practitioners will allow, that by a proper management of natural labours, with equal regard to the fupport of the perinæum, &c. they will find that the women recover much better; a good knowledge of natural labour certainly affifts us with information in all cafes of the preternatural; it is frequently to be obferved where one ftage of parturition is unufually rapid, or unnaturally expedited, a fubfequent ftage is retarded; as, for inftance, where the child is fuddenly born from a want of due fupport of perinæum, the placenta is retarded; this I know to be frequently the cafe.

There

There will be great utility in counteracting an hasty procedure, particularly in impatient women, in order that the conclusion of birth may co-operate in assisting the contraction of the uterus, and, consequently, the expulsion of the placenta.

Would not a sensible, humane practitioner be seriously vexed if, by not paying proper attention to the last stage of delivery, it should be said by his negligence the woman was injured? Would he have a chance of being employed in the same family? Would not his compeers, in the same town, take advantage both of his negligence and his want of skill?

With regard to the delivery of the placenta, considerable mischief has ensued from its immediate expulsion. My practice is, that if the placenta does not come easily away in the course of twenty minutes from the birth of the child, by pulling gently at the funis, in different directions; if, then, there should be any retention, I wait another half hour; and, by gently pulling, try if any advances have taken place. If no advances have taken place within an hour or two, (according to circumstances) I then find it necessary to deliver by manual introduction; and not more than two cases have taken place in my own practice. But in all cases we have not the advantage of the funis, by its rupturing from the smallness of its size. In most cases the manual operation is certainly prevented, by paying a proper regard to the support of the perinæum, and preventing the hasty expulsion of the fœtus. I am,

GENTLEMEN,

Your humble servant,

Wakefield, Yorkshire. SAM. THOMAS, Surgeon.

P. S. Upon mature consideration, I should be sorry to doubt the abilities of Dr. Kinglake, whose papers in your useful Miscellany I have read with pleasure, (all except the last); and, being an advocate for the good success of the science of midwifery, which I think ought to be in the hands of the most intelligent practitioners, and not in those of low uneducated women, it could not escape my notice without something being said on the subject, as I think if the perinæum is not properly supported, laceration may ensue, and perhaps other direful symptoms take place. In a case of the presentation of the face, or rather the chin, which I had lately, if there had not been due support applied, during every pain, to the perinæum, laceration, I am certain, would have taken place.

On the good Effect of Æther and Tinct. Opii, in Cramp of the Stomach.

ON the 2d of September, a lady was attacked (though in previous health) with violent pain of the back while ſtooping, which immediately extended from the ſpine to the ſternum, and fixed upon the region of the ſtomach, and was ſo violent as to cauſe clammy ſweats, a moiſt, pale, cadaverous look, juſt as if ſhe was dying; pulſe hardly perceptible; and, to expreſs her own feelings, ſaid ſhe thought ſhe was dying. As ſoon as poſſible I got her ſome æther and tinct. opii, which eaſed her a little, ſo that ſhe was able to get up ſtairs to bed, and applied warm flannel, &c. to the ſtomach; but the pain became more ſevere, attended with violent ſhivering, which continued for the ſpace of twenty minutes; clammy ſweats and paleneſs; pulſe hardly perceptible, and the extremities cold. Being now very much alarmed, Dr. Crowther, a phyſician of eminence in this town, was ſent for; he came immediately, and requeſted me to continue to give her æther ʒj. tinct. opii gt. xv.; to rub the back with æther, &c. and for her to take it every hour, if the pain continued violent; to apply hot cloths, wrung out of water, to her feet. Theſe remedies were perſiſted in for an hour or two, and the æther, &c. gave almoſt inſtant relief. The ſtomach was ſo weak that ſhe was not able to bear any thing ſtronger than a little ſaloop, in which there was put a ſmall quantity of brandy. In the evening, being coſtive, had a clyſter, and the pain in the ſtomach better; but could not bear up in an erect poſture of body, as, if ſhe did, the pain returned with violence; but always found relief from a doſe of the æther.

On the 3d ſhe was better, except the pains coming on at ſlight intervals; but could not yet bear up in an erect poſture of body. Continued the æther and tinct. opii ter die, et enema nocte.

4th. Still continues better, but the ſtomach ſo weak as not to take broth; ſtill finds herſelf eaſy when laid down; in the erect poſture very uneaſy. Æther, &c. continued.

As it would be uſeleſs to give every day's account, which would be only treſpaſſing on your time, I have only to obſerve that ſhe has experienced ſlighter attacks, which have not been ſo violent as the firſt, but that ſhe has always found immediate relief from æther, and which ſhe thinks was evidently one means of ſaving her life.

The above caſe certainly ſhews us the good effects of æther; for

for if the debilitating ſyſtem had been made uſe of, probably the lady would not at this time have been living.

Having obſerved in your Journal the good effect of ol. terebinth. in burns and ſcalds; a near relation of mine happened to ſcald herſelf with ſome boiling broth, which cauſed intenſe heat and inflammation, but on pouring ol. terebinth. upon the part, for the ſpace of a quarter of an hour, it gave her eaſe, nor was any ill effects produced by the ſcald.

Wakefield, Yorkſhire, SAM. THOMAS, Surgeon.
Oct. 7, 1800.

Account of a peculiar Sort of Tumour observed on the Heads of new-born Infants; *by* Dr. MICHAELIS, of Harburg.

[Extracted from Loder's Journal of Surgery, &c. Vol. II. No. IV. p. 657, in German.]

THIS tumour is to be diſtinguiſhed from ſwellings on the head, with which children are ſometimes born, or that appear after a ſlow and difficult birth, occaſioned by long preſſure or the rupture of ſome blood veſſels; and it differs, by the following marks, from any other ſwelling of the head, hernia cerebri, or hydrocephalus internus.

1. By being often obſerved after very eaſy labours.

2. By not always appearing on prominent parts of the head; though this may ſometimes be the caſe, on account of their generally being remarked at the temples.

3. By commonly appearing one day after birth.

4. By being more elevated and circumſcribed than any other ſwelling on the head, and by ſhewing a perceptible fluctuation.

5. By the ſkin, with which it is covered, keeping its natural colour and ſtate, and by its being eaſily moveable on the tumour, without changing the ſituation of it, a circumſtance that ſeems to prove its being deep; the ſkin, therefore, appears to move on the tumour when the child is crying.

6. By not diſappearing or diminiſhing on the application of preſſure, and where, alſo, no ſtupor is occaſioned, a ſymptom that always takes place in a *hernia cerebri*, or *hydrocephalus internus*.

7. It differs from a tumour caused by the rupture of blood-veſſels, or from a lymphatic ſwelling by the ſingular change which the bone, on which it is ſituated, is obſerved to undergo. The external table of the bone is entirely wanting; the diploë uncovered, and the edge of the impreſſion that is thus occaſioned may be plainly felt. By this peculiar circumſtance, the tumour is particularly diſtinguiſhable from any other.

On opening it, a black and coagulated blood is found in it, lying immediately on the diploë. It is very probable, that the tumour originates from a diſeaſe of the bone; and that it is not occaſioned by the former, on account of their both being found in the ſame ſtate from the firſt moment.

To remove this tumour by diſcutients, is an attempt that has, in moſt caſes, proved ineffectual. The diſeaſe of the bone is increaſed by the preſſure of the blood exciting the abſorbent veſſels to a greater action of the bone, whereby, at laſt, a hole is occaſioned, and the brain injured by its being preſſed. The only thing that can be done, is to open the tumour, and to let out the blood, in order to prevent the farther abſorption of the bone. This operation is not without danger, on account of the loſs of blood that runs from the bone as from a ſponge; but by making the inciſions ſmall, it may in a great meaſure be avoided. It is, however, very ſeldom that it ſucceeds in healing the bone, and the children generally fall a ſacrifice to this ſingular affection. It is, fortunately, rarely obſerved; but, according to Dr. Michaelis, it ſeemed to occur more frequently at Harburg than any where elſe. He relates a caſe of this diſeaſe, which we ſhall briefly ſtate: A tumour, of the ſize of an egg, appeared on the right temple of a new born infant, the following day after a labour which had been uncommonly eaſy. As it ſhowed the abovementioned characters, there could be no doubt of its being this ſpecies of tumour. He firſt tried to diſſolve it, and a cold ſolution of ſal ammoniac and ſalt petre in vinegar, and cataplaſms of the herb *Arnica*, were accordingly applied; but having continued them nearly a fortnight without the leaſt effect; the tumour was opened, and a black, thick blood diſcharged from the wound. The bleeding, which was not very conſiderable, ceaſed on the application of alcohol, in which ſcraped linen was dipt. The wound began to ſuppurate the next day, and in twelve days it was healed up; the child felt no pain whatever, and was quite well: An impreſſion, however, remained from the want of the external table of the bone. A few weeks after the child was ſeized with a general eryſipelas, of which it died. Dr. M. being curious to inform himſelf of the ſtate of the bone where the tumour had been ſituated, cut through the integuments, when

when he found the bone appearing with a rough surface, deprived of its external table as far as the tumour had extended, and only seeming to be regenerated in some places.

Besides these innate species of tumour, similar ones occur on all parts of the body, and are always combined with a loss of the bone, close to which the blood lies. They contain coagulated and liquid blood; and on opening them, a dangerous hæmorrhage is sometimes experienced. Dr. M. relates a case of a man who had four of these tumours; one on the right breast, of the size of a large egg, by which the ribs, where it had grown, were absorbed; another in the neighbourhood of the temporal artery; a third on the maxilla superior; and the fourth in the vicinity of the arteria spinosa: this was discovered on the dissection of the body; and it is probable, that by its pressure on the brain, death was brought on. None of these tumours had the common signs of aneurisms.

Account of a profitable Method of obtaining Phosphoric Acid. By Mr. Suersen.

[Extracted from the Northern Archives of Medicine, &c. in German. Vol. I. No. 2.]

THE shortest way of preparing pure phosphoric acid, is, undoubtedly, by acidifying the phosphorus with nitric acid, which is done with the least loss of time, and without great expence. Although this process has been generally thought to require the utmost caution, it is only necessary when a great portion of phosphorus is infused with nitric acid; as by the vehement action of such a quantity of phosphorus upon the nitric acid, a part of it rushes out, and by getting in contact with atmospheric air, catches fire, and blows up the vessel in which the distillation is performed. The same accident happens when, according to Hermbstaedt's experiment, four ounces of nitrous acid, diluted with eighteen ounces of water, are poured upon one ounce of phosphorus, and distilled in the sand bath. There is, at first, no perceptible activity upon the acid; but when this becomes by degrees more concentrated, a similar effect, as in the former operation, is produced. The process, as proposed by M. Suersen, is the following: Several ounces of pure concentrated nitric acid, after being diluted with equal parts of water, are so divided, that each single ounce is poured into a separate subliming glass, and after having put them upon an iron grate, half a drachm

of phoſphorus is added to each portion of the nitric acid, and the veſſels are heated by means of a lamp, till a ſufficient action of the phoſphorus on the nitric acid is perceived, by diſcharging a conſiderable quantity of nitrous fumes, but without becoming too vehement; and, in caſe the fumes ſhould begin to illuminate, any accident that accompanies the former methods may be prevented by pouring a little diſtilled water on the mixture, and, at all events, the lamp may be laid aſide when the veſſels ſeem to be ſufficiently heated. The addition of the phoſphorus is now continued in ſmall portions, and the veſſels alternately heated, till a ſufficient quantity of it is acidified. For the acidification of a conſiderable portion of phoſphorus, four ounces of nitrous acid are generally required of 1,508 ſpecific gravity, at a temperature of 61° Fahrenheit, and it may be completed in the ſpace of four hours. The phoſphoric acid thus obtained is very diluted, and muſt be expoſed to a diſtillation in the ſand bath; while it continues there a phoſphoric acid is obtained, of the conſiſtency of a ſyrup, whoſe ſpecific weight is about 2000. By this method two ounces and a half of a very concentrated and pure phoſphoric acid are obtained from one ounce of phoſphorus.

CRITICAL RETROSPECT
OF
MEDICAL AND PHYSICAL LITERATURE,

[FOREIGN AND DOMESTIC.]

Recherches sur l'Influence de l'Air dans le Developpement; i. e. Researches on the Influence of Air in causing Diseases, on their Character and Treatment; a Work, in which it is proposed to establish, on Principles of Medicine and Observation, the Relation of Nosologic Constitutions; by L. D. A. Bouffey, Physician at Argentan. Paris, Year 7, for Didot the younger, pp. 176.

To enquire into the influence of the atmospheric constitution, in producing diseases, is an undertaking both extensive and difficult; and though it is a subject of the greatest importance, it has not yet sufficiently been investigated, and still requires to be ascertained by experience and the evidence of facts. The author of this publication has, therefore, a just claim to the praise of the public, for having devoted himself to this task by collecting materials for the purpose, and arranging them in such a way, that a more perfect theory can be founded upon them. The work, of which the author has published this first volume, is divided into *three parts*. *In the first*, which is comprehended in this volume, the author, after having explained the general principles relating to meteorology, subjoins some remarks on the necessity of observing the vicissitudes of the atmosphere, on the defects to which this sort of observation is still subject, and on the means of rendering it more useful to medicine. He proceeds farther to examine the atmospheric air, by considering it with respect to its physical and chemical properties, and at last in its state of agitation. Under this head, the winds, their origin, and the influence they have on atmospheric constitutions, and on the seasons, ought to be likewise recorded in this general survey, as without these the examination of each particular temperature will be rendered less easy. After having examined the physical causes, it would be necessary to represent under a general view, their action on the animal œconomy; and this is the point to which the author has aimed, by examining the effects of atmospheric air, or rather its decomposition in the lungs, and the impression it occasions in the interior organisation. *In the second part*, the author means to treat particularly of the four principal temperaments, as adopted by *Hippocrates; and in the third part*, he is to consider the air, when charged with heterogeneous particles, in a greater proportion than it generally is found to contain, which he comprehends under

four

four different claſſes. In the *firſt*, he is to examine the matter of electricity, as far as it influences and alters the atmoſpheric air; in the *ſecond*, the mineral exhalations; in the *third*, the vegetable; and in the *fourth*, the animal exhalations.

Reflexions ſur la Nouvelle Methode d'Inoculer la petite Verole avec le Virus de Vacches; i. e. Reflexions on the New Method of Inoculating with the Vaccine Poiſon, by T. S. Vaume, M. D. Paris; a pamphlet of 11 leaves.

According to the author of this Pamphlet, the inoculation of the ſmall-pox, undertaken by well-informed perſons, leaves nothing farther to be wiſhed, and is quite ſatisfactory. In this reſpect he appeals to the numerous experiments made by himſelf with the greateſt ſucceſs, in his practice at Agacio. He conſiders the fever, and other ſymptoms which precede, accompany, and follow the eruption, as neceſſary requiſites for the ſucceſs of inoculation, obſerving, at the ſame time, that it is always in the power of a phyſician to ſubdue them. Upon theſe premiſes he concludes by aſſerting, that the new method of inoculating with the cow-pox, (vaccine, called by him vacchine) ought to be utterly rejected, even without any farther examination.

Voyage dans l'Empire de Flore; i. e. Travels in the Empire of Flora; or, Elements of Vegetable Natural Hiſtory; by L. M. P. T. Phyſician, 2 vol. 8vo. Paris, Méquignon.

This Publication, one of the beſt books on the elements of Botany, is unluckily the reſult of a literary robbery, being a copy of the lectures delivered by the celebrated *Desfontaines*, who has in different Journals re-claimed it, and has reprobated this abuſe of confidence, and this ſort of ſpoliation of the product of his ſtudies. However, though the author is juſtly to be blamed on this account, yet we cannot forbear to confeſs, that he has done much ſervice to young botaniſts, by putting into their hands theſe leſſons, of which they particularly ſtand in need, and which Desfontaines would probably not have ſo ſoon publiſhed, as he is only accuſtomed to bring before the public, the reſults of a long and laborious ſtudy. We recommend our readers, who are happy enough to find pleaſure and comfort in the ſtudy of Botany, to procure this work, which is a good compendium of that ſtudy.

Illuſtratio Iconographica Inſectorum, quae in muſæis Pariſinis obſervavit et in lucem, edidit J. Chr. Fabricius, præmiſſis ejuſdem Deſcriptionibus; accedunt Species plurimae, vel minus, aut nondum cognitae; Authore Ant. Coquebert, Societ. Philomat. et Hiſtoriae Natur. Paris, Socio, Tabular, Decas 1, Pariſiis, Typis Didot, natu majoris, An. 7, 4to. vellum paper, figures, coloured.

Mr. Fabricius has deſcribed in his Syſtematic Entomology, and the Supplement to it, ſeveral new inſects, which he ſaw in the

different collections at Paris. His descriptions, however, being not always sufficient for determining the species he had in view, the great difficulties hence arising can only be removed by good figures of the orignals, signed by his hand; by which means these objects will, as it were, be multiplied and perpetuated, and which, if once destroyed, may perhaps not be found again. It is therefore incumbent upon us to do proper justice to the zeal and merit of Cit. Coquebert, author of the work we are here announcing, which consists in representing by figures, coloured after his own drawings, the insects observed in the Paris cabinets, and described by Mr. Fabricius; in adding the description and synonimous terms of that naturalist, and in publishing other new species, or those that are less known. The celebrated artists, Cit. Maleuvre for engraving, and Didot the elder for the typographical part, have assisted in this interesting work, and seconded the pencil of a man, who knows how necessary it is to observe and study Nature, before he attempts to copy her. The 10 first plates contain about 120 figures, a great number of which present the insects in detail. He begins with those that are particularly subject to be destroyed, belonging at the same time to less numerous classes than others, viz. the *Symitotes*, *Peezotes*, and *Ryngotes* of Fabricius. North America, Cayenne, the Barbary states, and the south of France, are the principal countries from which the species he has figured are brought. The new genera of Delphax, Oryssus, and Psocus are here figured, with an accurate representation of their organs of manducation, in which he has been much assisted by Cit. Latraille, to whom the plate is entirely owing of the little known genus Psocus, which on account of their minuteness and fugacity, had hitherto escaped the observation of naturalists. Some anatomical observations, new synonimous terms, and other remarks, give an additional value to this work; and we are convinced that it will meet with the most favourable reception by every naturalist and amateur.

Mr. Davy's Chemical and Philosophical Researches.

[Concluded from pp. 360—364, of our last.]

" I was awakened by head-ache and painful nausea. The nausea continued even after the contents of the stomach had been ejected. The pain in the head every minute increased; I was neither feverish nor thirsty; my bodily and mental debility were excessive, and the pulse feeble and quick.

" In this state I breathed for near a minute and half five quarts of gas, which was brought to me by the operator for nitrous oxyde; but as it produced no sensations whatever, and apparently rather increased my debility, I am almost convinced that it was from some accident, either common air, or very impure nitrous oxyde.

" Immediately after this trial, I respired 12 quarts of oxygene for near four minutes. It produced no alteration in my sensations at

at the time; but immediately after I imagined that I was a little exhilarated.

"The head-ache and debility ſtill however continuing with violence, I examined ſome nitrous oxyde which had been prepared in the morning, and finding it very pure, reſpired ſeven quarts of it for two minutes and half.

"I was unconſcious of head-ache after the third inſpiration; the uſual pleaſurable thrilling was produced, voluntary power was deſtroyed, and vivid ideas rapidly paſſed through my mind; I made ſtrides acroſs the room, and continued for ſome minutes much exhilarated. Immediately after the exhilaration had diſappeared, I felt a ſlight return of the head-ache; it was connected with tranſient nauſea. After two minutes, when a ſmall quantity of acidified wine had been thrown from the ſtomach, both the nauſea and head-ache diſappeared; but languor and depreſſion, not very different in degree from thoſe exiſting before the experiment, ſucceeded. They however, gradually went off before bed time. I ſlept ſound the whole of the night except for a few minutes, during which I was kept awake by a trifling head-ache. In the morning, I had no longer any debility. No head-ache or giddineſs came on after I had ariſen; and my appetite was very great.

"This experiment proved, that debility from intoxication was not increaſed by excitement from nitrous oxyde. The head-ache and depreſſion, it is probable, would have continued longer if it had not been adminiſtered. Is it not likely that the ſlight nauſea following the effects of the gas was produced by new excitability given to the ſtomach?

"To aſcertain with certainty, whether the moſt extenſive action of nitrous oxyde compatible with life, was capable of producing debility, I reſolved to breathe the gas for ſuch a time and in ſuch quantities, as to produce excitement equal in duration and ſuperior in intenſity to that occaſioned by high intoxication from opium or alcohol.

"To habituate myſelf to the excitement, and to carry it on gradually,

"On December 26th, I was incloſed in an air-tight breathing box, of the capacity of about 9 cubic feet and half, in the preſence of Dr. Kinglake.

"After I had taken a ſituation in which I could by means of a curved thermometer inſerted under the arm, and a ſtop-watch, aſcertain the alterations in my pulſe and animal heat, 20 quarts of nitrous oxyde were thrown into the box.

"For three minutes I experienced no alteration in my ſenſations, though immediately after the introduction of the nitrous oxyde the ſmell and taſte of it were very evident.

"In four minutes I began to feel a ſlight glow in the cheeks, and a generally diffuſed warmth over the cheſt, though the temperature of the box was not quite 50°. I had neglected to feel my pulſe before I went in; at this time it was 104 and hard, the animal heat was 98°. In ten minutes the animal heat was near 99°, in

a quarter

a quarter of an hour 99.5°, when the pulſe was 102, and fuller than before.

" At this period twenty quarts more of nitrous oxyde were thrown into the box, and well-mingled with the maſs of air by agitation.

" In twenty-five minutes the animal heat was 100°, pulſe 124. In thirty minutes, twenty quarts more of gas were introduced.

" My ſenſations were now pleaſant; I had a generally diffuſed warmth without the ſlighteſt moiſture of the ſkin, a ſenſe of exhilaration ſimilar to that produced by a ſmall doſe of wine, and a diſpoſition to muſcular motion and to merriment.

" In three quarters of an hour the pulſe was 104, and animal heat not 99,5°, the temperature of the chamber was 64°. The pleaſurable feelings continued to increaſe, the pulſe became fuller and ſlower, till in about an hour it was 88°, when the animal heat was 99°.

" Twenty quarts more of air were admitted. I had now a great diſpoſition to laugh, luminous points ſeemed frequently to paſs before my eyes, my hearing was certainly more acute, and I felt a pleaſant lightneſs and power of exertion in my muſcles. In a ſhort time the ſymptoms became ſtationary; breathing was rather oppreſſed, and on account of the great deſire of action, reſt was painful.

" I now came out of the box, having been in preciſely an hour and a quarter.

" The moment after, I began to reſpire twenty quarts of unmingled nitrous oxyde. A thrilling extending from the cheſt to the extremities was almoſt immediately produced. I felt a ſenſe of tangible extenſion highly pleaſurable in every limb; my viſible impreſſions were dazzling and apparently magnified, I heard diſtinctly every ſound in the room, and was perfectly aware of my ſituation. By degrees, as the pleaſurable ſenſations increaſed, I loſt all connection with external things; trains of vivid viſible images rapidly paſſed through my mind, and were connected with words in ſuch a manner, as to produce perceptions perfectly novel. I exiſted in a world of newly connected and newly modified ideas. I theoriſed; I imagined that I made diſcoveries. When I was awakened from this ſemi-delirious trance by Dr. Kinglake, who took the bag from my mouth, indignation and pride were the firſt feelings produced by the ſight of the perſons about me. My emotions were enthuſiaſtic and ſublime; and for a minute I walked round the room perfectly regardleſs of what was ſaid to me. As I recovered my former ſtate of mind, I felt an inclination to communicate the diſcoveries I had made during the experiment. I endeavoured to recall the ideas; they were feeble and indiſtinct; one collection of terms, however, preſented itſelf: and with the moſt intenſe belief and prophetic manner, I exclaimed to Dr. Kinglake, " *Nothing exiſts but thoughts!—the univerſe is compoſed of impreſſions, ideas, pleaſures, and* [illegible]*s!*"

About three minutes and half only had elapſed during this experiment,

experiment, though the time, as meaſured by the relative vividneſs of the recollected ideas, appeared to me much longer.

"Not more than half of the nitrous oxyde was conſumed. After a minute, before the thrilling of the extremities had diſappeared, I breathed the remainder. Similar ſenſations were again produced; I was quickly thrown into the pleaſurable trance, and continued in it longer than before. For many minutes after the experiment, I experienced the thrilling in the extremities, the exhilaration continued nearly two hours. For a much longer time I experienced the mild enjoyment before deſcribed connected with indolence; no depreſſion or feebleneſs followed. I ate my dinner with great appetite, and found myſelf lively and diſpoſed to action immediately after. I paſſed the evening in executing experiments. At night I found myſelf unuſually cheerful and active; and the hours between eleven and two, were ſpent in copying the foregoing detail from the common-place book, and in arranging the experiments. In bed I enjoyed profound repoſe. When I awoke in the morning, it was with conſciouſneſs of pleaſurable exiſtence, and this conſciouſneſs, more or leſs, continued through the day."

A ſecond Eſſay on Burns, in which an Attempt is made to refute the Opinions of MR. EARLE,* *and* SIR W. FARQUHAR, *lately advanced, on the ſuppoſed Benefit of the Application of Ice in ſuch Accidents: With Caſes and Communications, confirming the Principles and Practice brought forward in a former Eſſay. Alſo Proofs, particularly addreſſed to Surgeons of the Army and Navy, of the Utility of the ſtimulating Plan in the Treatment of Injuries cauſed by the Exploſion of Gunpowder.* By EDWARD KENTISH, author of the former Eſſay.

IN this Eſſay Mr. Kentiſh has brought forward a number of proofs in addition to thoſe mentioned in his former, of the ſuperiority of his mode of treating burns with ſtimulants over the cold applications generally recommended. His vicinity to the coal mines, where accidents frequently happen from the exploſion of inflammable air, gives him extenſive practice in this branch of ſurgery, and his experience and ingenuity claim the attention and examination of his brethren on this ſubject. He judiciouſly remarks, "that if men would in general confine their efforts to a few points, ſcience would make a more rapid progreſs, though there might be leſs brilliancy attached to individuals. It is by a diviſion of labor that perfection is to be attained in the ſcientific, as well as in the mechanic arts."

In order to demonſtrate the *principle* on which Mr. Kentiſh directs the application of ſtimulants to burns, we quote the following paſſage: "I have in my former Eſſay mentioned at ſome length the effects of different degrees of temperature upon the animal ſyſtem. It will there appear, that animals endowed with the property

* Now Sir James Earle.

perty of life, have a power of preserving their existence under a varied degree of temperature proportioned to the perfection of their organization; and if gradually applied, the extent of the scale is greater. Man will exist from zero to two hundred and sixty degrees of Fahrenheit's thermometer; though rapid changes much within that range will destroy him. Such is his glassy essence, that it appears necessary to treat him as artists do that substance, viz. to anneal him, by allowing his temperature to be changed gradually. Such is in some delicate constitutions the narrow scale of accommodating power in the system, that a change which appears insensible to persons of a more healthy frame, produces such disturbance in the actions of absorption and secretion, as to bring on complaints of the most serious nature. Delicate ladies who keep close within the house, in going from one room to another bring on that state of the system known by the term of *catching cold.* This state is also very frequently induced by a too sudden and great application of the stimulus of heat, after the torpor induced from lowering the temperature only a few degrees. The effect of a diminished quantity of heat is proved by the facts adduced by Mr. Hunter, of the rabbits' ears, (*vide First Essay, p.* 108.) to have stopped all action in the part; and the effect of increased heat applied to my own body (ibid, p. 111.) proves the increased action induced by heat. I do not mean by this to deny the power of fire combining with, and decomposing any part of the system to which it has been so applied. I am well convinced I could burn my finger off over an Argand's lamp; but after this decomposition, I should not expect that ice would draw out the caloric, and restore me my finger. When caloric combines with any substance, a chemical union takes place; and when this is done with the living animal fibre, it is at the expence of a destruction of organization, which no human art can restore in that individual fibre. Yet supposing a finger, or part of a finger, to be so destroyed, there must have been increased action previously to destruction; and where destruction ceases, increased action, from this greatest of all known stimuli, will begin. Now as I think it will be granted that parts cannot be restored, those which we have to take care of must class under the head of parts with increased action. If this be admitted, I believe I have formerly pointed out the best known modes of treatment. What to me is one of the most convincing proofs of the truth of the principles I wish to be made known, is, that the *inverse* of them is proved to be true by the experience of all countries subject to a diminished temperature; and, reasoning upon the same data, Mr. Earle's principle must be erroneous: for instance, if in a *plus* of heat it should be drawn off by cold, in a *minus* of heat, it should be added by the body which is the readiest to part with its heat. The following case will illustrate these principles: In the beginning of this year (1800) there was a severe storm, in which many ships were lost upon the coast of Northumberland, and a great number of men perished from the intensity of the cold. Three were taken to a small inn in a fishing town on the coast, and

as one was very much *froſt-bitten*, with the beſt intentions in the world the good people of the inn prepared a hot bath for him, in which having kept him a ſufficient time, they put him to bed, and gave him ſome hot ale and brandy. The conſequence of this treatment was, that the torpid actions of the ſyſtem were ſo rapidly put into motion, that the vital power was exhauſted in forty-eight hours, and the man died. The others, who fortunately had not ſo much *falſe* care beſtowed upon them, recovered with difficulty; for although they did not uſe the bath, they had a ſhare of the other ſtimuli applied, ſufficient to produce pernicious effects. Now had Mr. Earle's principle been right, the man would have lived, as they took the readieſt way of applying, both externally and internally, the *deficient heat.* Had the oppoſite practice been taken with this man, I have very little doubt but he would have recovered: the froſt-bitten parts (the extremities, both ſuperior and inferior) ſhould have been thawed in water not above 40 degrees; he ſhould then have baen put into a cold bed in a room without a fire; and if he had been allowed any ſtimulating drink (ſuch as ale) it at leaſt ſhould have been cold: but of the propriety of allowing, at an *early* period, even this ſtimulus, of *cold fermented* liquor, I have my doubts. For the danger of allowing too great ſtimulus after what is termed an accumulation of irritability, I refer the reader to accounts of ſhip-wrecked people: the narrative of the loſs of the Bounty will ſupply them with ſufficient obſervations on this head."

The ingenious author purſues the *principle* of treatment recommended in his former Eſſay, though in the detail of practice he has been induced to make ſome alterations, which he thinks highly advantageous. "In the firſt ſpecies, *where the action of a part only is increaſed,* I have not found any thing better for the firſt application than the *heated* Ol. Terebinth. and the digeſtive thinned with the ſame. In ſuperficial burns, when the *pain* has ceaſed, it will be adviſeable to deſiſt from this application in about four and twenty hours, as that time in many caſes will be ſufficient, and at the ſecond dreſſing a digeſtive ſufficiently thinned with common oil, will be adequate to the caſe; and on the third day to begin with the ceratum e lapide calaminari. I have frequently ſeen ſecondary inflammation excited by the remedy, which in the firſt inſtance puzzled and perplexed me conſiderably: I have likewiſe been informed of this conſequence by ſeveral gentlemen. The moſt certain *remedy* for this unpleaſant ſymptom is to apply a plaſter with digeſtive thinned with oil, or a plaſter of cerate, and over that *a large warm* poultice. This moſt effectually takes off the irritation of the part, and the cerate will finiſh the cure. Should there be much uneaſineſs of the ſyſtem, an anodyne proportioned to the age of the patient ſhould be given."

Mr. K. is very ſevere upon Dr. Underwood in his chapter on burns and ſcalds (*vide Diſeaſes of Children, Vol. 2, p.* 106.) for preſcribing applications whoſe actions and effects are ſo diametrically oppoſite.

A Treatiſe

A Treatise on the Bath Waters; by GEORGE SMITH GIBBES, M. D. F. R. S. &c. 8vo. p. 71. London, 1800, Robinſons.

As the ſubſtance of this ſcientific and correct work has already appeared in Mr. Nicholſon's Journal, and as Dr. Saunders has given the reſults of the analyſis in his work on mineral waters, of which we gave ſome account in our laſt Number, it will not be neceſſary for us to make long extracts.

"With ſuch powerful effects," the Author obſerves, "as the Bath Waters are known to produce on the human conſtitution, it is aſtoniſhing to find that ſo few active principles ſhould have been diſcovered by thoſe learned men who have made them the ſubject of their enquiries. It has been alleged, that all attempts to diſcover the properties or effects of mineral waters on the human body by chemical experiment or analyſis are vain and inſignificant, as many effects are produced by them not to be accounted for from any diſcoverable impregnation. The learned Dr. Falconer very juſtly combats this opinion. He obſerves, "that ſuch reaſoning, "if applied equally to all branches of learning, would preclude "all ſearch whatever; and, had it formerly obtained, would have "prevented our acquiſition of many uſeful and important diſco- "veries which we now enjoy." The Doctor, with that liberality which diſtinguiſhes the character of the man of learning, obſerves, that in diſcuſſions on ſubjects of ſcience, when opinions alone are controverted, it may be alleged, that no apology is neceſſary; as candour ſhould be the inſeparable attendant on learning; and no man of ſcience ſhould be aſhamed to receive information, from whatever channel it may be derived. As an apology for offering to the world the preſent performance, it ought to be recollected that the ſcience of chemiſtry has within theſe few years made very rapid advances, and the cultivators of it have now many more fixed principles, on which to found their reaſonings, than could have been ſuſpected by thoſe who applied to it but a few years ſince. Even the exiſtence of many very active ſubſtances was then totally unknown. Many agents and principles, which, a few years back, were believed to regulate the phenomena of Nature, are now proved to have had no exiſtence but in the imaginations of the cultivators of this ſcience. A ſcience which comprehends ſo large a field of inquiry muſt doubtleſs be ſubject continually to changes, according to the advances which are made in it. The detection of a new principle muſt, in every ſcience, alter the reaſonings reſpecting the phenomena which it preſents.

"There are daily poured forth from the ſprings at Bath, upwards of two thouſand hogſheads of water; which water is heated conſiderably above the temperature of ordinary water. As a matter of curioſity, I find that the quantity of heat which is evolved by them in the courſe of one year, above the medium heat of other ſprings, would render above ſeven hundred million of cubic inches of iron red hot.

"The following is a ſtatement of the heat and quantity of the Bath Waters:

The

	Tuns.	Hhds.	Gal.
The King's Bath contains - - - -	314	0	36
The Queen's Bath - - - - - - -	81	3	11
The Cross Bath - - - - - - - -	53	0	47
The Hot Bath - - - - - - - - -	54	0	27
	502	4	58

" Sixteen ounces or forty cubic inches of water at 55° of heat were raised by a cubic inch of iron red hot to 90°.

" One cubic inch, of red hot iron, would raise fifteen cubic inches of water, at 55° of heat, to the heat of the Bath waters; and there arise two thousand hogsheads of water every day from the springs.

" The temperature of the King's Bath, and Hot Bath, is about 114° of Fahrenheit; by pumping a considerable time they have been found to raise the thermometer to 116°, and even to 118°. The Cross Bath is of somewhat a lower temperature, about 110° or 112°.

" It is difficult to ascertain with precision the heat of the Bath waters. When examined under the same circumstances, their temperature appears uniform. The regular temperature of the Bath waters, and the length of time that they have been known to pour forth their hot streams, would induce us to think that the cause of their heat is uniform, and very deeply situated in the bowels of the earth. I beg leave to offer a conjecture respecting that regularity of their temperature; which is, that at some great depth in the earth, they are at a very high temperature, and that in coming up to the surface of the earth, their temperature is lowered to the degree they are found to possess. Thus it should seem that they are analogous to the Geyzer in Iceland, and that at a certain depth, they would be found to have nearly the same appearances. That they are not of the nature of common springs of water is evident from their not being affected by the vicissitudes of weather, nor from the alternation of wet or dry seasons.

" The following extract, however, from Lord Gardenstone's travelling memorandums, seems to shew that water does sometimes acquire a considerable temperature at no great distance from the surface of the earth.

" Aix in Provence."

" Dr. Philips informed me of a remarkable fact relative to these " waters. About three or four years ago, the inhabitants were " alarmed by a sudden and great defect in the usual flow of water " from their fountains. The flow gradually diminished, and in a " few days they were almost dry; happily the cause of this scar- " city was soon discovered and easily remedied. In fact, a farmer " about the distance of half an English mile from Aix, had, " at this time, on some scheme of improvement, dug up part of " his ground, when, at a small depth from the surface, a body of " water rushed out and continued to flow very plentifully. The " fact being reported at Aix, they conjectured that the farmer had

" thus

"thus accidentally fallen upon and diverted the ſtream which "ſupplied their fountains; but, upon inquiry, the farmer's ſtream "was found to have no degree of heat; on the contrary, it was "a very cold ſpring water.

"The experiment however was made. The farmer's ſtream "was replaced, and immediately the fountains of Aix were re-"pleniſhed with the ſame plenty and quality of water as formerly. "Thus it appears, with certainty, that this water acquires its "heat in the courſe of running from the farmer's ground to Aix; "but how or where it is impregnated with the quality of heat, is "not yet determined."

"I could mention a great variety of inſtances where the Bath waters have produced great effects in diſeaſe; but as I intend to make the medical properties of theſe waters the ſubject of the ſecond part of this treatiſe, I muſt content myſelf at preſent with expreſſing a hope that even thoſe who have hitherto conſidered theſe waters as inefficacious, will be inclined to agree with me, in allowing that theſe principles muſt have great medical powers.

"According to my experiments I beg leave to make a ſtatement of the Bath waters in the following manner:

1. The temperature at medium in the King's Bath 114°, in the Hot Bath a little above that of the King's Bath, and in the Croſs Bath about 96°.

2. In the water carbonic acid gas and azotic gas in very ſmall quantities. The carbonic acid ſurſaturates the carbonate of lime which is evolved by boiling. The following aëriform fluids eſcape from the ſprings through the water, and appear in bubbles on the ſurface:

a. Azotic gas - - - - ,80.
b. Carbonic acid gas - - ,15.
c. Oxygene gas - - - - ,05.

3. Iron in a ſtate of extreme diviſion, the quantities in conſequence of its apparent volatility not to be eſtimated. According to ſome writers, the King's Bath contains the largeſt portion.

4. Sulphate of lime, or ſelenite in the proportion of ,40 of the ſolid reſiduum.

5. Superſaturated carbonate of lime ,20.
6. Silex ,15.
7. Alum, or ſulphate of alumine, ,05.
8. Common ſalt and ſulphate of ſoda ,20.

"The ſolid matter forms about a 660th part of theſe waters.

"The ſand which is thrown up by theſe ſprings is compoſed of ſilex, ſelenite, carbonate of lime, ſome ſulphur, and ſome particles of iron which have been found to be attracted by the magnet."

The Hospital Pupil, or an Essay intended to facilitate the Study of Medicine and Surgery; in four Letters. By James Parkinson. 8vo. pp. 159, price 3s. 6d. London, 1800. Symonds, &c.

This induſtrious and benevolent writer is ſo well known to the medical world, that our commendation can add nothing to his fame.

fame. In country towns, from neceſſity, and frequently in London, from choice, the ſame perſon acts in the character of Surgeon, Apothecary, Accoucheur, and Phyſician. It is the education of ſuch a perſon that Mr. P. has principally in view. The firſt letter is on the qualifications and diſpoſitions neceſſary for a youth intended for the profeſſion of Medicine or Surgery. The ſecond, on the beſt method of educating a medical ſtudent, with an improved courſe of Hoſpital Studies.

"The grand object," Mr. P. obſerves, "which next calls for conſideration, is what is the beſt ſituation in which a youth can be placed; and what is the mode of ſtudy, which will moſt certainly ſecure him all the theoretical and practical knowledge, in the ſcience of healing, which, in the preſent ſtate of the ſcience, can be communicated.

"According to the preſent ſyſtem, the firſt care of a parent, who has a ſon whom he intends ſhall be educated in both branches of the healing art, is to find out ſome gentleman of reſpectability who is properly eſtabliſhed as a ſurgeon and apothecary. With him, paying a proper premium, he fixes his ſon, who has received a common ſchool education, as an apprentice for ſeven years. At the end of this period he is, in general, ſent to one of the hoſpitals in the metropolis, where he attends the lectures, and witneſſes the practice of the hoſpital for a twelvemonth, or even leſs time: and then, if a favourable opportunity offers, takes charge of the health of ſome populous neighbourhood.

"Now, on full conviction, I aſſert, that of all the modes which could be deviſed for a medical and chirurgical education, this is the moſt abſurd; and is the one which would moſt certainly exclude a young man from the chance of acquiring that knowledge which the important ſituation he is about to fill ſo imperiouſly demands.

"To put the ſubject in a fair point of view, it will be proper firſt to take a glimpſe of the manner in which the days of a young man, thus diſpoſed of, are ſpent; and then a fair eſtimation may taken of the advantages and diſadvantages which belong to this mode of communicating inſtruction.

"The firſt four or five years are almoſt entirely appropriated to the compounding of medicines; the art of which, with every habit of neceſſary exactneſs, might be juſt as well obtained in as many months. The remaining years of his apprenticeſhip bring with them the acquiſition of the art of bleeding, of dreſſing a bliſter, and, for the completion of the climax—of exhibiting an enema. If he be bleſt with a mind ſo alert, that even this ſituation, ſo ill calculated to call it into action, cannot render it torpid, he ſeizes every opportunity of gaining information; he peruſes and re-peruſes the Diſpenſatory, ſtudies ſome obſolete practice of medicine, and doſes over ſome treatiſe on phyſiology. Unknowing from actual inſpection the form, ſtructure, and ſituation of the ſeveral parts of the human body, his ideas of anatomy cannot but be exceedingly incorrect: phyſiological facts will be hardly within his comprehenſion.

ſion, and his ideas reſpecting the treatment of diſeaſes muſt be almoſt purely empircal.

"A young man, ſuch as I have already deſcribed, at the expiration of his apprenticeſhip, or ſoon after, enters himſelf as a pupil of an hoſpital; and as anxious, perhaps, to fulfil the period of his pupillage, as he was to accompliſh the term he has juſt finiſhed, he commences, at the ſame time, to attend the ſeveral lectures, and to act as a dreſſer. But when, as it muſt often happen, from the miſ-direction of his earlier ſtudies, of which I have juſt complained, he begins his courſe of obſervation, or of dreſſing, with but a ſlight knowledge of anatomy, and of the firſt principles of medicine and ſurgery, it muſt be evident that he muſt be incompetent to derive the full advantages which theſe opportunities offer to him.

"From what I have here, without exaggeration, ſtated, do you not perceive that a young man, who is placed behind the counter of an apothecary, for ſeven years, and receives his hoſpital education in the manner I have deſcribed, muſt be robbed of his fair chance of becoming a proficient in his profeſſion; and be too likely to enter upon the exerciſe of it, without being in poſſeſſion of the degree of knowledge, neceſſary for the due performance of the duties of ſo important a ſtation?

"From your deſcribing your ſon to be of an age fit for apprenticeſhip, as I have already remarked, and from the remembrance I retain of him, I ſuppoſe him to be about fourteen or fifteen years of age. The plan which I ſhall propoſe will, therefore, be ſuch as I think may be commenced by a youth of that age.

"The knowledge of ANATOMY being neceſſary, I am convinced, to be attained directly, he ſhould, therefore, as ſoon as poſſible, engage himſelf in a courſe of anatomical lectures. My friend, I know you well, and therefore, without any violent ſtretch of imagination, can fancy that you, as well as many others who may read this paſſage, will exclaim—what! attend a courſe of anatomical lectures at fourteen years of age! But a little attention will, I truſt, evince the propriety of the recommendation.

"Let it be conſidered that anatomy is the very alphabet of phyſiology, which teaches the knowledge of the animal œconomy; and that, by anatomy alone, we learn the natural ſtate of parts, as well as the changes produced by diſeaſe, the removal of which will be ſo much the object of his future endeavours. An early knowledge of anatomy muſt, therefore, be obtained; but as three or four months muſt now elapſe before any courſe of anatomical lectures commences, let the intermediate time be employed in rendering his knowledge of the *Latin* and *Greek* more perfect; but particularly of the former.

"He ſhould, at this period alſo, read ſome elementary treatiſe on anatomy; ſuch as Dr. Hooper's Anatomical Pocket-book, ſince he will thereby gain ſome information reſpecting thoſe parts on the depicting of which his pencil is exerciſed; at the ſame time, that it will be to him as a nomenclature, teaching him the meaning

meaning of the various terms used in the science. He may also employ himself, at times, in obtaining some general knowledge of the several branches of NATURAL PHILOSOPHY.

" By a sedulous application he will thus render himself capable not only of comprehending the language of a lecturer; but also of better accompanying the lecturer, in the description of the various parts of the human body, and of their several offices. As soon as the opportunity presents, he should commence his attendance on anatomical lectures; but not without having impressed on his mind, that his future progress in his studies depends on his present vigilance and attention. Those hours which his lectures do not engage should be employed in tracing over the parts which have been the subject of the preceding lecture, in some anatomical work, such as Winslow's System of Anatomy; or, in some accurately drawn plates, such as those of Albinus, Eustachius, &c. by occasionally copying of which he will now much accelerate the obtaining of anatomical knowledge. In this manner, with two courses of lectures, he should pass the winter.

" In the season which intervenes between this period and the next winter course of lectures, he may be employed in the reading of some system of anatomy, as well as of physiology, written in Latin, such as the *Prælectiones Anatomicæ* of Leber, and the *Primæ Lineæ Physiologiæ* of Haller; by doing this he will keep up, at the same time, his anatomical knowledge and his acquaintance with the Latin.

" With his next courses of anatomical lectures should be combined lectures on PHYSIOLOGY. These, from the anatomical information he has now gained, and from the studies which have lately employed him, he will now be able to understand, sufficiently to secure his attention, and to excite that interest which due to a science, the knowledge of which is of so much consequence to him. During his attendance on the first course of this second set of anatomical lectures, he should, at the latest, commence the exercise of PRACTICAL ANATOMY. If this be properly attended to, and a due portion of the hours, not employed in dissection and lectures, be given to revising and copying the short-hand notes of the physiological lectures, his time will be fairly, and I doubt not successfully employed.

" Having thus completed his second season, his mind will have now become well furnished with fundamental knowledge; and his summer course of studies may be of course widened. His reading will now be extended to the more voluminous works of Haller, Monro, &c. by which, with occasional reference to his notes, and the exercise of his pencil, his anatomical and physiological attainments will be considerably increased. He will now read some compendium of modern CHEMISTRY, perhaps the one which I have published for the use of students may be as proper as most, or should he choose a larger work, the Principles of Chemistry, by Dr. Gren, is recommendable.

" The other branches of natural philosophy must now be again earnestly

earnestly attended to; and, if possible, the knowledge of them should be accelerated, by the happy illustration which will be yielded, by a course of lectures and exhibition of experiments.

During this period he may also impress on his mind, so strongly as to be prompt to his recollection, the generic characters, at least, of disease, from the Nosology of Cullen. After this he may read, with advantage, the First Lines of the Practice of Physic, by the same celebrated writer. Some systematic treatise of surgery may now also engage his attention: and he should likewise obtain some knowledge of the MATERIA MEDICA.

"He will now be prepared to resume his winter course of studies, which must now comprise two courses of lectures on CHEMISTRY, on the PRACTICE of PHYSIC, and on the PRACTICE OF SURGERY, and a continuance of anatomical lectures and dissections.

"His third term being thus filled up, and completed, he will be found qualified to attend to the demonstration of the nature of disease, and the effects of medicines, in CLINICAL LECTURES; he will now also be enabled to derive considerable advantage by attending the hospital as an attentive observer."

The third letter contains directions for the prosecution of hospital studies, according to the *present* system of medical education; and the last suggests hints on entering into practice, and on medical jurisprudence, &c.

We earnestly recommend this work to all young men who are at present, or propose to be, engaged in the study of Medicine or Surgery.

A Comparative Statement of Facts and Observations relative to the Cow-Pox, as published by Doctors JENNER *and* WOODVILLE. 4to. pp. 43, pr. 5s. London, 1800, Low, &c.

Dr. WOODVILLE's second publication, entitled "*Observations on the Cow-Pox,*" were noticed at p. 256 of Vol. III. and we there intimated that they appeared to have been dictated by the sensorial powers of irritation and sensation, rather than those of volition and association; and we then thought they required only to be left to the attempering effects of Time. This author, however, appears to think otherwise, and has attempted to assimilate these oils and acids by the *tertium*, reason, or comparison. The following extracts will enable our readers to judge of the author's candour and accuracy.

"To prevent the possibility of misrepresentation, Dr. Jenner's positions shall be contrasted with correct extracts from Dr. Woodville's pamphlets.

"We shall begin with the most important position of Dr. Jenner:

'*That persons, who have been affected with Cow-pox, are rendered perfectly secure from the effects of variolous contagion.*'

* " It has been asserted, that persons have had the Small-pox " after having been affected with the Cow-pox; and some facts " have been published with a view to show that instances of this " kind have actually happened. But all these, as far as I have " seen, have been very defective in not affording sufficient proof, " that the affection supposed to have been the Cow-pox, was in " reality that disease. On the other hand, the instances which " have been brought forward to prove that those who had under- " gone the genuine Cow-pox resisted the infection of the Small- " pox, are unquestionably decisive, and sufficiently numerous to " establish the fact in the most satisfactory manner. This circum- " stance then appears to be as much a general law of the system, " as that a person having had the Small pox is thereby rendered " unsusceptible of receiving the disease a second time. For of all " the patients whom I inoculated with variolous matter, after they " had passed through the Cow-pox, amounting to upwards of 400, " none were affected with the Small-pox; and it may be remarked, " that nearly a fourth part of this number was so slightly affected " with the Cow-pox, that it neither produced any perceptible in- " disposition, nor pustules."

" The position of nearly equal import is,—*That the Cow-pox is* " *not contagious by effluvia.*"

† " One important advantage which the Cow-pox is supposed " to have over the Small-pox is, that the former is not a con- " tagious disease, and not to be propagated by the effluvia of per- " sons infected with it. This is certainly true when the disorder " is confined to the inoculated part, but where *it produces numerous* " *pustules upon the body*, the exhalation they send forth is capable " of infecting others in the same manner as the Small-pox. Two " instances of casual infection in this way have lately fallen under " my observation; in one the disease was severe, and the eruption " confluent; in the other the disease was mild, and the pustules " few."

" The following position of Dr. Jenner next merits our attention: ' *That no eruption, ending in variolous-like pustules, belongs to the* ' *Cow-pox.*'

‡ " Although I differ in opinion from Dr. Jenner in not imput- " ing the pustular eruptions, produced in the cases at the hospital, " to any adulteration of the vaccine matter, employed in the " inoculations, yet I readily admit that *they have been*, and still " *continue to be, the effect* of some *adventitious cause, independent of* " *the Cow-pox*§.

' *That*

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* See Dr. Woodville's Reports, page 154.

† See Dr. Woodville's Reports, page 153.

‡ See Dr. Woodville's Observations, page 18.

§ Dr. Woodville, " *in his Observations*," is at variance with the opinion he formerly advanced " *in his Reports*."—In the latter he asserts, that " *the Cow-pox* produces *numerous pustules upon the body*:" in the former, that the pustules " *have been*, and *continue to be, the effect* of some *adventitious cause*, *independent of the Cow-pox*."

'*That the Cow-pox is a much milder disease than the Small-pox,*' is Dr. Jenner's fourth position.

* "In regard to the comparative mildness of the vaccine and "variolous diseases, as produced from inoculation, I have been "enabled to give a very different report from that which I pub-"lished last year. The reason why several of the Cow-pox cases "then at the hospital proved severe, like those of the inoculated "Small-pox, has already been sufficiently explained, and will, I "trust, have the effect of placing the Cow-pock inoculation in a "more advantageous point of view than my former *Reports* pre-"sented."

The last position, and of least importance, is—"*That the Cow-pox proceeds from the diseased fluids of the horse.*

"In this Dairy Country, (says Dr. Jenner) a great number of "cows are kept, and the office of milking is performed indiscri-"minately by men and maid servants. One of the former having "been appointed to apply dressings to the heels of a horse affected "with *the grease*, and not paying due attention to cleanliness, in-"cautiously bears his part in milking the cows, with some parti-"cles of the infectious matter adhering to his fingers. When this "is the case, it commonly happens that a disease is communicated "to the cows, and from the cows to the dairy-maids, which "spreads through the farm until most of the cattle and domestics "feel its unpleasant consequences. This disease has obtained the "name of the *Cow-pox*."

Dr. Woodville, far from adopting this position, relates the following experiments, to prove that the disorder in question does not originate from any disease of the horse.

† "Conceiving that the distemper might be produced by ino-"culating the nipples of cows with the matter of the grease of "horses, in conformity with the opinion above stated, I proceed-"ed to try whether the Cow-pox could be actually excited in this "manner.

"Numerous experiments were accordingly made upon different "cows, with the matter of grease, taken in the various stages of "that disease, but without producing the desired effect.

"My friend, Mr. Coleman, the ingenious Professor at the Ve-"terinary College, likewise made similar trials, which proved "equally unsuccessful.

"Neither were inoculations with this matter, nor with several "other morbid secretions in the horse, productive of any effects "upon the human subject."

"Mr. Tanner being known to Dr. Woodville, and respected by him for his integrity, Dr. Woodville can justly appreciate the degree of credit that ought to be given to the following letter:

"Sir,

* See Dr. Woodville's Observations, p. 28.

† See Dr. Woodville's Reports, p. 6, 7, 8.

"Sir,

"Some Cow-pox matter on a thread was applied to the teat of "a cow on the part from which a ſcab had been removed. I pro- "cured it from Mr. Fewſter, of Thornbury, who told me it had "been kept a long time, and that he did not think it poſſible for "it to produce any effect. I went to the cow and examined the "part where it had been applied in five days after, but it had not "produced the ſmalleſt effect. Some limpid matter, juſt taken "from the heel of a horſe, was then applied on the part, and on "the ninth day, when I firſt examined it, I found that it had pro- "duced a complete vaccine puſtule. From handling the cows teats "I became infected myſelf, and had two puſtules on my hand, "which brought on inflammation, and made me unwell for ſeveral "days. The matter from the cow, and that from my own hand, "proved efficacious in infecting both human ſubjects and cattle.

"I am, your's, &c.

"THOMAS TANNER, V. S."

MEDICAL AND PHYSICAL INTELLIGENCE.

[FOREIGN AND DOMESTIC.]

Discovery of a new Salt.

Dr. HAHNEMANN has diſcovered a new fixed alkali, of which he gives the following account. It is called *Pneumalkali (Alkali pnëum)* on account of its puffing up, in a ſtrong fire, to a maſs twenty times greater than before. It cryſtallizes in large hexagonal priſms, ending with two oblique ſides, one of which is triangular, the other pentangular. Theſe cryſtals keep very well, when expoſed to the moiſture of the air, and neither fall into powder nor deliqueſce. The *pneumalkali*, when reduced to powder, diſſolves in half its weight of water, in a heat of 300° Fahrenheit, and almoſt ſeems to liquify in its own water of chryſtallization; at 65° Fahrenheit, 140 parts of it are ſoluble in 500 parts of water. In a great degree of cold it is extremely difficult of ſolution, and precipitates therefore in the cold from its neutral ſalts, by the addition of any other alkali. It is not ſoluble in ſpirits of wine. By ſaturating a watery ſolution of this ſalt with ſtrong acids, ſome little ebullition is produced, with the diſcharge of a ſmall quantity of gas, which is not yet aſcertained to be carbonic acid. The ſulphat of this alkali is inſoluble in ſpirits of wine, and diſſolves with difficulty in water. Its neutral combinations, however, with nitric,

nitric, muriatic, and phoſphoric acid, poſſeſs a greater degree of ſolubility, and particularly that with acetic acid. Theſe neutral ſalts diſſolve with eaſe in ſpirits of wine in great proportion, and the two laſt at a very cold temperature. The muriate of pneum ſhoots in feathery cryſtals; its phoſphat is of a bitter taſte; all neutral ſalts which it forms are, with the exception of the phoſphat of pneum, diſengaged from their acids by fire, and the pure pneumalkali is found remaining. For decompoſing, however, the ſulphat of pneum, it was neceſſary to employ the red heat. The nitrat of pneum, when liquefied in its water of cryſtallization by fire, diſcharges the acid in red fumes, and is thus decompoſed by a leſs degree of heat. Thrown upon burning coals it cauſes no detonation, nor any other noiſe, but emits its red fumes without any illumination. A combination of this alkali with carbonic acid is very difficultly obtained, and the eaſieſt way of performing it, is by decompoſing in the cold, a ſolution of any neutral ſalt of pneumalkali by other mild alkali. The pure pneumalkali firſt falls to the bottom in a cryſtallized ſtate, and at laſt the carbonat of pneum appears in the form of a light earth; but of this combination it ſeparates already in the common temperature of our atmoſphere, and this apparent earth is again changed in the ſpace of twenty-four hours into pneumalkali. The colours of vegetables are in the ſame way changed by it, as by the other alkalies. It precipitates metals and earths, and even diſlodges the barytes from its ſolution in muriatic acid, probably in a cauſtic ſtate. The calcareous earth precipitated by it from the muriat of lime, diſſolves in diſtilled water, forming on the ſurface of the ſolution, after having ſtood ſome time, a ſort of cream. A ſolution of the pneumalkali, rubbed with ſweet mercury, does not change the colour of it. Corroſive mercury precipitates with a crimſon red colour, the nitrat of mercury, black; nitrated ſilver, white; &c. It decompoſes the ſal ammoniac in a heat that ſurpaſſes 100° Fahrenheit; but in the cold, even the cauſtic ſpirit of ſal ammoniac, precipitates the ſolutions of its neutral ſalts. A ſaturated ſolution of this ſalt, unites in the cold with groſs oils, when only ſhaken with them for a few moments, and forms a ſoap that is eaſily ſoluble in alkohol; and this ſolution may be diluted with diſtilled water, without becoming turbid.

Theſe are the experiments which Dr. Hahnemann has hitherto made with this ſubſtance, from which, chemiſtry as well as medicine, may derive no inconſiderable advantages. It is to be ſold by commiſſion, at Chr. Gottlieb Hilſher's, of Leipſic, at one Frederic's d'or, or about ſeventeen ſhillings, for a glaſs containing about one ounce. Letters and money to be ſent poſt paid. *(Crell's Chemishe Annalen, No. 5, 1800.)*

Prof. Mascagni of Siena, relates, in a letter to Dr. Gautteri, ſome obſervations on urinary ſtones and gravel. The efficacy of alkalies upon them ſeems to conſiſt in neutralizing the lithic acid, and by that means forming neutral ſalts, which diſſolve eaſier in water than the acid itſelf. The urine of perſons affected with the

ſtone,

ſtone, always ſhews evident traces of lithic acid, whenever the ſymptoms of the ſtone are increaſing. With this view, a ſolution of pure kali, was ſucceſsfully employed in complaints occaſioned by the ſtone or gravel. But as the pure kali has the inconvenience of ſometimes affecting the ſtomach and bowels by its corroſiveneſs, Prof. M. was curious to know whether the carbonate of potaſh would have the ſame effect, though he was conſcious of its not acting upon ſtony concretions out of the body, which are eaſily diſſolved in pure kali, with which the lithic acid forms a neutral ſalt; whereas it ſeems not ſo nearly related with the potaſh, as to diſengage the carbonic acid. However, being himſelf ſubject to affections of gravel, *Prof. Mascagni* began to take the carbonate of potaſh, and found it very efficacious in preventing the formation of the gravel; and during the time it was uſed, the traces of lithic acid entirely diſappeared, but the ſymptoms increaſed when it was for ſome time left off. In the urine a fine ſaline ſubſtance was diſcovered, that eaſily diſolved in warm water. By the continuance of the alkali, the urine ſeemed to become ſuperſaturated with it, and yellow vegetable colours were changed into red by it. Theſe experiments ſeem to prove, that the common kali penetrates to the urinary ſyſtem, and prevents by its combination with the lithic acid, the formation of calculus and gravel, and it is not improbable that it likewiſe acts as a lithontriptic; but this is to be aſcertained by farther experiments. The carbonic acid is very probably diſengaged from the potaſh in the way of digeſtion and chylification, by which the latter is enabled to act upon the lithic acid.

Pure potaſh may be given to one drachm diſſolved in two pounds of water, which portion is to be taken in one day. The doſe of the carbonate of potaſh is three drachms per day. Its continued uſe does not ſeem to have any bad effect upon the organs of digeſtion. Prof. Hufeland, in whoſe Practical Journal this letter is publiſhed, remarks, that his own obſervations perfectly agree with the above experiments, and he always found alkalies, mineral as well as vegetable, do much good in calculous affections; and on this account the waters of *Carlsbad* in Bohemia, prove extremely efficacious againſt them, as they contain a conſiderable portion of mineral alkali. He frequently ſaw by the uſe of it, *calculous* ſubſtances become *sabulous*. There is a remedy celebrated in Holland, particularly under the name of *liquor lithontripticus Loosii*, which contains, according to an accurate chemical analyſis, *calx muriata*. Prof. Hufeland recommends it in the following form, ℞. *Calcis muriat. drach. j. solv. in aqu. distillat. unc. ij.* S. thirty drops to be taken four times a day, which doſe may be increaſed, as far as the ſtomach can bear it. *(Hufeland's Journal, Vol. ix. No. 4.)*

Prof. Mascagni has likewiſe made ſeveral obſervations and experiments on abſorption, and the ſmall capillary tubes that form the origin of the abſorbent veſſels, of which all the membranes of the body

body ſeem to be compoſed. They are of different texture, more or leſs ſolid, according to the *media* to which they are expoſed. The epidermis, for inſtance, upon which different gaſiform fluids act, conſiſts of capillary tubes of a texture more tender than thoſe which form other membranes, and by this means they are enabled to abſorb the aëriform fluidities. (*Ibid.*)

The late Mr. GIRTANNER writes in a letter to Van Mons, that he has made a number of experiments in curing venereal diſeaſes by oxygen, which diſcovery he claims to himſelf. The reſults of theſe are the following. When the diſeaſe is not inveterate, and only requires the firſt degree of oxydation, he uſes the citric acid; for the ſecond degree, the diluted oxalic acid; for the third degree, and in general againſt the moſt inveterate diſeaſes, he applies the oxyd of arſenic. There is no remedy more efficacious againſt venereal diſeaſes, diſeaſes of the liver, obſtructions of the belly, dropſies, &c. than this; but the lungs muſt not be affected, as the patient cannot then ſupport it but will expire in a ſhort time. He mixes four or five drops of a ſaturated ſolution of the white oxyd of arſenic in nitric acid, with two pints of water, to be taken in two days. This remedy has done wonders with him. There is alſo nothing more powerful againſt agues than this. If the patient begins to cough, the remedy muſt be laid aſide, a dry cough being a ſign of the body becoming over oxygenated. Should the cough continue, it can be moſtly removed by the liver of ſulphur. (*Ibid.*) *No.* 102.)

According to ſome experiments, which the ſame gentleman has made with the tranſparent rock cryſtals of Switzerland, he found that a great part of them volatiliſed like diamonds; but theſe experiments ought to be repeated. (*Annales de Chemie,* 101.)

CIT. CHAPTAL has diſcovered a new method of bleaching, whoſe peculiarity is not yet known.—The ſame gentleman has read a memoir at the Societé Philomatique, at Paris, on the art of taking out ſpots from every ſort of cloth, the contents of which we ſhall communicate in a future Number.

Mr. ROUPEN and VAN NORDEN, two Dutch chemiſts, are at preſent occupied with new experiments on the nature of coal impregnated with different gaſes. The former has exhibited a new pyrophorus from the amber. (*Scherer's Journal of Chemiſtry.*)

CIT. VAN MONS prepares the new ſalt, diſcovered by Chauſſier, (*Hydroſulfuré, ſulfuré de Soude: See Medical and Phyſical Journal, No. XI. Jan.* p. 82.) by expoſing a mixture of ſulphat of natron, ſulphur and charcoal, to a red heat in a covered veſſel, and by this proceſs it is obtained in conſiderable quantity. The ſulphur hydrogenates as ſoon as it gets in contact with water, and combines itſelf again as hydroſulfure with ſulphur. The hydrogen gets by

this way the property of neutralising an acid. This salt forms thick, perfectly white, and transparent crystals. It does not seem to be quite as soluble in cold water as Cit. Chaussier has observed. It detonates with the muriate of kali. Chaussier applied it with success against herpetic exanthemata. Van Mons thinks it very useful against symptoms occasioned by the abuse of mercury. He is at present engaged in experiments to combine this salt with kali, ammonia, strontite, lime, &c. to determine the proper nature of this new preparation. (*Ibid. No.* 21.)

The same chemist exposed the oxygenated pomatum to a distillation in open fire, and obtained a great quantity of ammonia. Hence it seems evident, that the azote of the nitric acid has united itself with the suet. Put upon a hot iron it got the consistency of horn, and diffused the same smell as gelatina. (*Ibid.*)

Dr. Woodville, who has lately returned from France, where he has been to introduce the inoculation for the Cow Pox, began the practice upon three children at Boulogne, and placed them under the care of Dr. Nowell, an English physician, who was desired to send vaccine matter upon lancets to Paris, as soon as the arms of those children produced a sufficient quantity for the purpose. This precaution proved to be very fortunate; for, five days afterwards, when the matter of the same pock was tried at Paris, it produced no effect whatever; and the Cow-pox matter which Dr. Thouret had received from Geneva, and which had not been longer than four or five days upon the thread, was found to be equally incapable of producing the disease. As Reaumur's thermometer at Paris was, about that time, frequently at 29 deg. or above 96 of Fahrenheit, it was concluded that these failures afforded a proof that the vaccine matter does not preserve its efficacy so long during hot, as during temperate or cold weather. The disappointment from the above trials was not, however, of long continuance. The inoculations at Boulogne succeeded, and from them Dr. W. was supplied with matter, at Paris, which fully answered his expectations. Dr. Colon's only child was the first person he inoculated at Paris; and other medical men, in order to testify the confidence they placed in the new inoculation, followed the example; so that Dr. W. had the satisfaction to see the practice extended not only among the children in different hospitals, but also in private families in Paris, where, no doubt, it will soon become general. At Boulogne the Cow-pox inoculation has been continued by Doctor Nowell, who lately transmitted to Paris a report of the numbers to whom he had communicated the infection. With the vaccine matter which Dr. Pearson sent to Paris, thirty children had been inoculated, of whom ten took the disease; from these ten, only five others were infected, when all further attempts to propagate the Cow-pox entirely failed, and the *matter* was lost several weeks before Dr. Woodville's arrival at Paris.

Dr.

Dr. WATERHOUSE, Professor of Physic at Cambridge, in New England, in a letter dated the 4th of August, 1800, to a friend at Bath, communicates the following information:

"Accept my best thanks for the phial of vaccine poison. Its activity I have experienced on my nearest connections. I have inoculated five of my own family, and roused the public attention even beyond what I had imagined. The symptoms and the appearance in the inoculated part were exactly similar to those described and pictured by Dr. Jenner. I shall try the variolous matter on them in a week or two. I consider this as a very important thing to my country, where the dread of the Small-pox is still great.

"I have ventured to give a new name to the vaccine disorder. I observe that people revolt at the term Cow-pox, I have therefore changed it to *Kine-pox,* from kine the plural of cow. As I am the only one in America who has published any thing on that new disorder, I am in hopes to establish that name instead of the former. If it should obtain, I can foresee, than the *e* will in time be changed into *d.*"

The vaccine matter sent to America was taken from a patient at Bath, several months before it was employed with effect at Cambridge, in New England.

Dr. JAMES GREGORY, of Edinburgh, has just printed a Memorial to the patrons of the Infirmary, or Public Hospital, of that city; in which he proposes, that the surgeons of the institution shall in future be permanently attached to it; and points out many disadvantages attending the present mode, in which all the resident surgeons of the College serve in the Infirmary by rotation In this memorial, he enters deeply into the consideration of certain differences subsisting, at present, among the surgeons of Edinburgh, and introduces many interesting anecdotes in the medical history of that celebrated school.

The late Dr. KIRKLAND has left a valuable manuscript, comprising his third volume of Medical Surgery, which is intended to be published by his son, Mr. J. Kirkland, who practises as a Surgeon at Ashby de la Zouch.

Mr. NOBLE, surgeon in Birmingham, will, in a few weeks, publish Part II. of a Treatise on the Ophthalmy, and those diseases which are induced by Inflammations of the Eyes, with methods of cure considerably different from those in common use; to which will be subjoined, an Enquiry into the Powers and Efficacy of many Applications, which are generally esteemed, and had recourse to, in different diseases of the eyes. The succeeding part will be prepared for the press as soon as possible.

Dr. CARSON, practitioner in Midwifery, of the same town, is engaged in a small work on the Treatment of Pregnant Women,

men; in which it is his intention, principally to point out the moſt probable and advantageous means of preventing abortion.

Dr. WILLAN will ſpeedily publiſh Obſervations on the Diſeaſes of London, during the years 1796, 7, 8, 9, and part of 1800, accompanied with Meteorological Tables, and with a great variety of practical and important information.

Mr. JOHN BELL has made great progreſs in a work on *Military Surgery*, that has been for ſome time earneſtly expected from him. It will probably fill two volumes in 4to. which will contain many illuſtrative engravings. Its publication will be early in the enſuing year.

Dr. ALEXANDER THOMSON has in the preſs, a familiar work on the cure and prevention of diſeaſes. He propoſes to include every uſeful fact contained in Tiſſot, Buchan, Wallis, Parkinſon, and other popular writers, with the improvements and recent diſcoveries; and he is printing it in a ſmall type and ſize, that it may be ſold at a moderate price.

STATE OF DISEASES IN LONDON.

Account of Diſeaſes in an Eaſtern Diſtrict of London, from the 20th of Auguſt to the 20th of September, 1800.

	No. of Caſes.
ACUTE DISEASES.	
Typhus	7
Dyſenteria	8
Cholera Morbus	17
CHRONIC DISEASES.	
Cough	12
Cough with Dyſpnœa	5
Pertuſſis	2
Hæmoptyſis	3
Hoarſeneſs	1
Phthiſis Pulmonalis	4
Catarrhus	3
Gaſtrodynia	9
Dyſpepſia	8
Diarrhœa	20
Colica Pictonum	3
prolapſus Ani	2
Inteſtinal Hæmorrhagy	2
Amenorrhœa	5
Menorrhagia	4
Hemiplegia	3
Lumbago	4
Chronic Rheumatiſm	10
Herpes	12
Tinea	1
Papulous Eruptions	16
PUERPERAL DISEASES.	
Dolores Poſt Partum	7
Maſtodynia	2
Menorrhagia Lochialis	3
INFANTILE DISEASES.	
Diarrhœa	15
Herpes	12
Aphthæ	4

The ſeveral ſpecies of inteſtinal diſeaſe, which conſtituted ſo large a proportion of the liſt, in the report of the laſt month, ſtill continue to prevail. Children as well as adults have been much affected by them, and in many caſes they have proved very obſtinate,

Account

Account of Diseases in an Eastern District of London, from the 20th of September to the 20th of October.

	No. of Cases.
ACUTE DISEASES.	
Typhus	15
Peripneumony	5
Pleurisy	3
Small-pox	6
Dysentery	10
CHRONIC DISEASES.	
Cough	15
Cough with the Dyspnœa	12
Hæmoptysis	6
Pleurodyne	4
Phthisis Pulmonalis	8
Catarrh	2
Diarrhœa	22
Enterodynia	6
Colica Pictonum	1
Hypochondriasis	5
Hysteria	4
Chlorosis	3
Fluor albus	7
Amenorrhœa	9
Menorrhagia	2
Hemiplegia	2
Cephalalgia	5
Vertigo	4
Chronic Eruptions	15
Chronic Rheumatism	10
PUERPERAL DISEASES.	
Low Puerperal Fever	3
Convulsions	1
Mastodynia	4
INFANTILE DISEASES.	
Diarrhœa	12
Herpes	4
Aphthæ	3

Diseases of the bowels, which have formed so large a proportion of the list in the late reports, still prevail very generally. Cholera, which a few weeks ago was so very frequent in its attacks, and so obstinate and alarming in its symptoms, has not lately occurred; but Diarrhœas or Dysenteries, in a slighter or more formidable manner, have visited almost every family. In many cases where it has not constituted the primary disease, *diarrhœa* has been an attendant symptom; and so general indeed has its appearance been, that it might be said to blend and connect itself with almost every disease. It ought not to be concealed, that in some instances it has proved highly salutary, and seems to have been the means which nature designed to employ in order to effect a cure. It is the more proper to mention this, since there is generally a strong desire on the part of the patient and his friends, too hastily to counteract this salutary process. In two or three cases of incipient phthisis, during a copious intestinal discharge, the cough was much relieved, and the difficulty of breathing considerably diminished.

Instances of typhus are numerous. They are in general of the milder species. The determination to the head is less violent, and the delirium less frequent than in former cases.

By a statement taken from the Bills of Mortality, and subjoined to this report, it appears that the Small Pox has proved uncommonly fatal. The unusual heat of the weather may be considered as one cause of this phenomenon. We will venture a conjecture, whether or not, in some instances, a long protracted hesitation, which of the two modes of inoculation to prefer, the varilous or the vaccine, has not exposed the party to the infection of the NATURAL Small Pox, and contributed to the great degree of fatality which has attended the disease.

The

The Deaths in the Bills of Mortality for the laſt three months are ſtated as follow:

Abſceſs	8	Jaundice	17
Abortive	10	Inflammation	117
Aged	281	Lunatic	24
Apoplexy	15	Meaſles	46
Aſthma	56	Mortification	58
Cancer	10	Palſy	31
Child Bed	35	Pleuriſy	8
Conſumption	1060	Small Pox	848
Convulſions	951	Still Born	90
Croup	4	Suddenly	23
Dropſy	163	Teething	72
Fever	675	Thruſh	5
French Pox	4	Water in the Head	15
Gout	28	Worms	5
Hooping Cough	44		

Diſeaſes admitted under the Care of the Phyſicians of the Weſtminſter Hoſpital, from the 20th of Auguſt, to the 24th of September, 1800.

Continued Fever	23	Erythema	1
Intermittent	1	Gaſtrodynia	5
Sore Throat	2	Hæmoptyſis	1
Splenitis	1	Hooping Cough	1
Amenorrhœa	6	Itch	2
Anaſarca	3	Jaundice	1
Aſcites	2	Leucorrhœa	1
Aſthenia	4	Lumbago	1
Cephalæa	3	Menorrhagia	1
Chloroſis	3	Paralyſis	1
Cholera	7	Pleurodynia	1
Colic	1	Somnambuliſmus	1
Cough	5	Rheumatiſm	5
Diarrhœa	4	Sciatica	1
Dyſentery	1	Struma	2
Dyſpepſia	3	Urticaria	1
Dyſpnœa	1	Tinea	1
Enterodynia	4	Vomiting	1

Diſeaſes admitted under the Care of the Phyſicians of the Weſtminſter Hoſpital, from the 24th of September to the 22d of October, 1800.

Continued Fever	15	Aſcites	2
Intermittent	1	Aſthenia	3
Pleuriſy	1	Catarrh	1
Amenorrhœa	3	Cephalæa	
Anaſarca	3	Colic	1

Cough

Cough	9	Lumbago	1
Diarrhœa	12	Menorrhagia	1
Dyſpepſia	2	Phthiſis	3
Dyſpnœa	1	Pleurodynia	1
Dyſuria	2	Pleurigo	1
Enterodynia	1	Rheumatiſm	7
Epilepſy	1	Struma	2
Hæmatemeſis	1	Vomiting	2
Lepra Græc.	2	Worms	1
Leucorrhœa	1		

NEW MEDICAL PUBLICATIONS IN OCTOBER.

A Treatiſe on Febrile Diſeaſes, including intermitting, remitting, and continued Fevers; eruptive Fevers; Inflammations; Hæmorrhagies and the Profluvia; in which an attempt is made to preſent, at one view, whatever in the preſent ſtate of medicine it is requiſite for the Phyſician to know, reſpecting the ſymptoms, cauſes, and cure of thoſe diſeaſes. By A. Philips Wilſon, M. D. F. R. S. Ed. &c. 8vo. 9s. Cadell and Davies, Callow, &c.

A View of the moſt important Facts which have appeared concerning the Inoculation for the Cow-pox, by C. R. Aikin, Surgeon, with a coloured Plate, repreſenting the Puſtules in different Stages, 2s. 6d. Phillips.

An Appendix to the Treatiſes on the Cow-pox, being a Continuation of Facts and Obſervations relating to that Diſeaſe, by Edward Jenner, M. D. 2s. 6d. Low.

The Hoſpital Pupil's Guide, with Anecdotes relative to the Hiſtory and Economy of Hoſpitals, 2s. Weſt and Hughes.

A conciſe View of Circumſtances and Proceedings reſpecting Vaccine Inoculation, &c. 2s. Hurſt.

The Naval Guardian, by Charles Fletcher, M. D. Author of "A Maritime State conſidered as to the State of Health of Seamen, &c." 2 vols. 14s. boards. Chapman.

NEW MEDICAL PUBLICATIONS IN FRANCE.

Memoires de Medicine Pratique, &c. i. e. Memoirs of Practical Medicine; on the Climate and Diſeaſes of the Mantouan Territory, on Peruvian Bark, on the frequent Cauſes of Chronic Diarrhœas in young Soldiers, and on the preſent Epidemic of Nice. By F. E. Foderé, D. M. 1 vol. 8vo. year 8, 1800, à Paris.

Traité de Membranes, i. e. Treatiſe on Membranes in general, and on different Membranes in particular. By Xavier Bichat, of the Society of Medicine, &c. 8vo. year 8. Paris, chez Richard, &c.

Leçons d'Anatomie comparée, &c. i. e. Lectures on Comparative Anatomy of Cit. Cuvier, of the National Inſtitute, &c. Collected and publiſhed under his inſpection by Cit. Dumeril, &c. 2 vol. in 8vo. pp. 500, enriched with engravings. Paris, for Baudouin.

NEW MEDICAL PUBLICATIONS IN GERMANY.

Die Werkzeuge, i. e. The Inſtruments of Ancient and Modern Obſtetric Art. By B. N. G. Schreger, Prof. at Erlangen. T. 1. fol. 1799. Erlangen, for Palm. Price 1 rixd. or about 3s. 6d.

Soemmering Tabulae baſeos Encephali. Fol. Frankfort, 1800, price 2 rixd. 12 gr. or about 9s. 6d.

Archiv

Archiv fur Zoologie, i. e. Archives for Zoology and Zootomy, published by Wiedeman, Prof. at Brunswic, Vol. I. No. 1. with plates, 1800. Berlin, for Voss. 8vo. price 2 rixd. or about 3s. 6d.

Annalen, i. e. Annals of the latest English and French Surgery and Midwifery; edited by Prof. SCHREGER and HARLES, Vol. I. No. I. II. III. with plates, 1800, price 18 groschen, or about 2s. 6d. each number. Erlangen, Schubart.

C. W. Bockmann's Physiche Chemische Versuche, &c. i. e. Physico-Chemical Experiments on Phosphorus in different Species of Gases, particularly in Azote and Oxygen Gas, with a Preface, and some Notes of Prof. Hildebrandt; with plates, 1800, 8vo. price 1 rixd. 12 gr. or about 5s. Erlangen, Schubart.

Callisen Henr. Principia Systematis Chirurgiae Hodiernae, Parsposterior, edit. nova, 1800, price 2 rixd. 8 gr. or about 8s. Hafnia, Proft.

Karsten's, L. G. Mineralogishe Tabellen, i. e. Mineralogical Tables, composed according to the latest Discoveries, fol. 1800, price 1 rixd. 8 gr. or about 5s. Berlin, Rottman.

Links, J. W. Grundalze der Pharmazie, &c. i. e. Elements of Pharmacy, together with its History and Literature, 8vo. 1800, Vol. I. p. I. et II. price 3 rixd. or about 10s.

Ophthalmologia Pathologica, S. de Cognoscendis et Curandis Organi visarii Affectionibus Liber. Sect. I. 8vo. 1800, price 20 gr. or about 3s. Lipsiae, Fleisher, jun.

Retzii, A. T. Fauna Suecica, 8vo. 1800, price 1 rixd. 12 gr. or about 5s. 6d. Lipsiae, Crusius.

To CORRESPONDENTS.

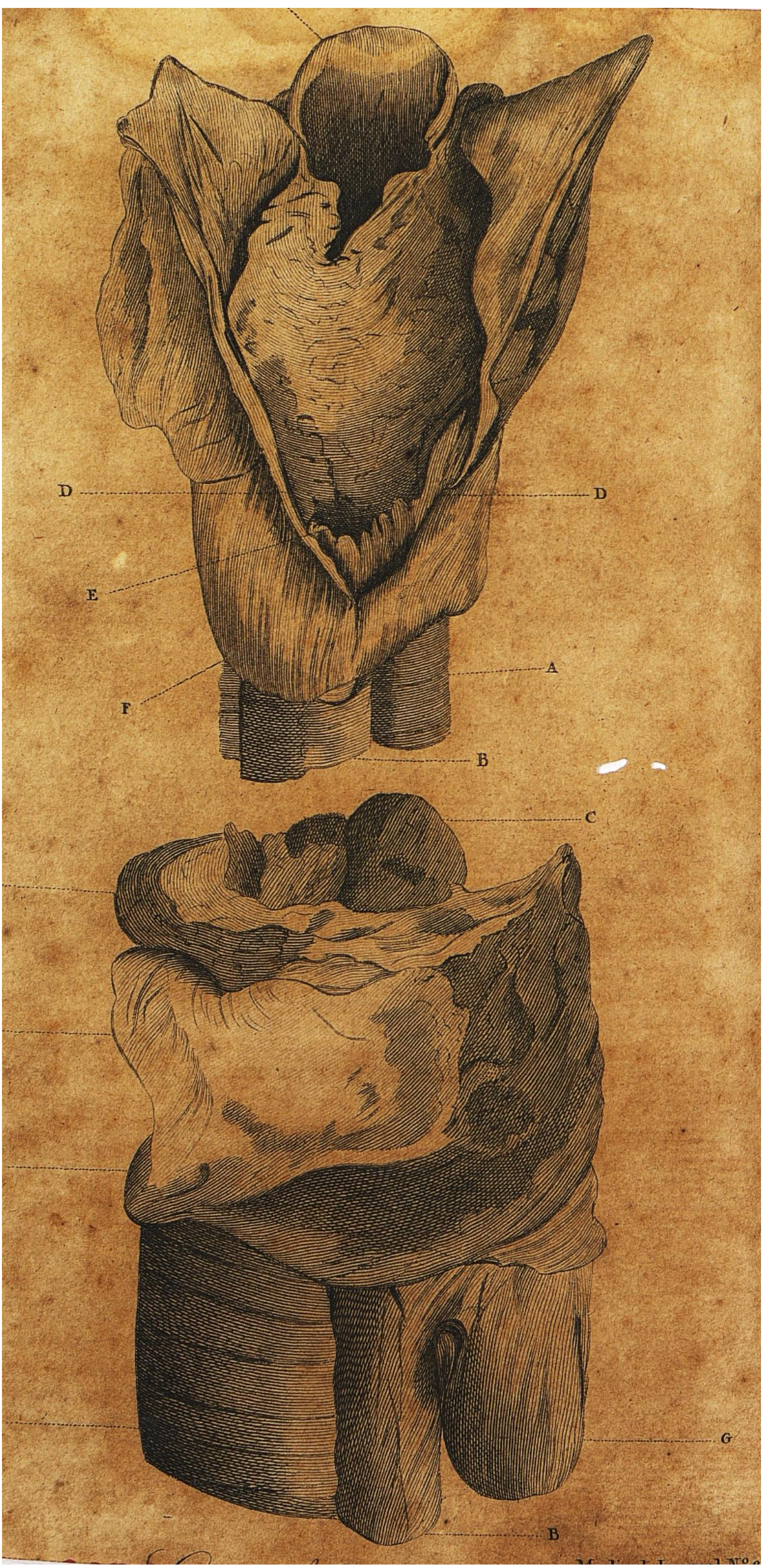
DR. BRADLEY, *to whom alone the whole blame is imputable, perceived, immediately after the publication of the last Number, the impropriety of inserting Dr. Nisbet's Case, which introduced the names of regular Practitioners in that form. He therefore, early in October, wrote a Note to Dr. N. of whom he had not the slightest knowledge, requesting an account of the present state of his Patient, and his Plan of Treatment. The following is his answer, and the Public will observe how far it is from being satisfactory.*

ST. JAMES'S STREET, 26th *October*, 1800.

"Dr. Nisbet returns Compliments to Dr. Bradley.—The Patient "has been seen since Dr. B. wrote his Card by Dr. Garthshore, by "Mr. Blair, surgeon, by Dr. A Buchan, and by Mr. Taylor, "Great Russell Street, who have desired Dr. Nisbet to use their "names in answer to the first part of his Card.

"On the means of cure, Dr. Nisbet has given a short hint in the "statement of the case, and a farther illustration of his principles "will be seen in his appendix to his Treatise on Cancer, being a "letter to Dr. Gregory on the subject. He has also given a pro-"mise of a farther detail, so soon as ten or twelve cases shall be "completed and published. Till then he considers any observa-"tions as premature."

Communications have been received from Messrs. Watt, Sergeant, Caldicott, Cowley, Waker, a Constant Reader, &c. which shall be attended to as soon as possible.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